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NORTH CAROLINA  
MEDICAL JOURNAL.

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EDITORS :

M. J. DEROSSET, M. D.

THOMAS F. WOOD, M. D.

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# NORTH CAROLINA MEDICAL JOURNAL.

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M. J. DeROSSET, M. D., }  
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## ORIGINAL COMMUNICATIONS.

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### NATURE AND USE OF THE MUSICAL FACULTY.

By F. DUFFY, M. D., Newberne, N. C.

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The musical faculty, that is the ability to originate, make, or appreciate music, is one of the most curious and interesting in man. Interesting, not only in itself, on account of its unique character and the variety and degree of its development in different individuals, but also on account of its analogies. It may be taken as a standard of comparison for other existing, but far less demonstrable, faculties in man.

For instance, if we were required to choose a person having special qualifications for learning or appreciating music, it is likely that any one, having or lacking such natural qualifications in an eminent degree, would be readily known. On the other hand it is required to choose one with special natural qualifications for the exercise of some other function, these qualifications might not be so readily discernable, although in that respect individuals might differ as much in degree as in the musical sense.

Many are too apt to overlook the fact that, after giving due credit

to every other influential circumstance, men are chiefly what they are, on account of physical organization, which organization, of course, has its dependencies, and while great versatility is to be found in some individuals, most persons have their special adaptations.

In music, as in other things, the vast majority of mankind would be classed as mediocre: it is associated with other faculties in every degree of admixture, its moderate, or even high development, not indicating either inferiority or excellence of natural capacity in other respects; although the exclusive exercise of this faculty will, as perhaps with any other, develop it to such an extent as to dwarf or obscure other faculties not less pronounced by nature. Music has her prodigies, some of whom, almost destitute of other mental endowments, excite their wonder of mankind, not only by the imitation of sounds and faultless rendition of the musical conceptions of others, but also by their own creations. On the other hand there are those who are destitute of the musical sense, "whose souls are not moved by sweet melody of sound," who have no mental enjoyment of the classic higher grades of music, and feel no emotional excitement from that essentially more musical style of music which appeals to the senses rather than to the intellect of man. Such have been stigmatized as "fit for treason, stratagem and spoils." Perhaps the number of persons who are totally destitute of the musical sense is not greater than the number of musical prodigies, who are destitute of other endowments. There being every intermediate grade between these two opposite conditions, and, drawing a line of mediocrity there would, we may infer, be as many of the different grades on the one side as on the other, just as has been found in the measurements of the human body, and the estimations of human intellect, (*Laws of Hereditary Genius by Francis Galton*) as shown by tables of statistics.

It will be observed that I have used the term "musical sense," and also that I have made a distinction between emotional and intellectual music, considering the emotional variety as essentially more musical.

It will, therefore, be well to discuss these terms and determine if such use and distinction is proper.

Every function of the human body, every vital phenomenon de-

pend upon the action of some organ or organs in single or in associated capacity.

Whether we consider, with Brown-Séquard, that the brain, for the most part, acts as a whole, or a unit, in the exercise of a variety of functions ascribable to it, or, with others, that it is an aggregation of organs, or parts, having localized functions, we know it to be the source of the intellect and the emotions. While there is much in favor of a localization of some functions and a positive difference in the motor and sensory ganglia of the brain this doctrine is often carried to an absurd degree. Thus "phrenologists" have been accustomed to mark circumscribed areas of the brain-surface, between which there is no anatomical division, as the seats of various faculties. So the musical faculty has allotted to it as a residence, a definite part of the brain, and is considered to be in proportion to the development of that part. If in fact, any particular part of the brain was only capable of musical perceptions, or any particular nerve was capable of transmitting only musical sensations, which is not, that I am aware, claimed by any, then we might speak of the special sense of music with as much propriety as of the sense of sight or hearing. The optic and auditory nerves, and their functions, can be clearly demonstrated: so there may be an anatomical musical apparatus, but, if so, it is so obscure, and its anatomical proportions so infinitesimal, as not to have been demonstrated.

Since we have no clearly demonstrated musical organ with a single function: we are only warranted in using the term in a conventional sense, referring to that capacity in man to appreciate musical sounds, whether with a special organ of the brain or, as is more likely, with that complex sensorium, which is the seat of other and varied emotions.

There can be no exercise of function without molecular change and perpetuation of function can only be maintained by molecular renewal of life in the organ which exercises that function, and if the same organ, or apparatus, is endowed with a variety of functions it must be that the function which is performed will depend upon the nature of the stimulus to which the organ or apparatus, is subjected. A given sound, for instance, working a definite molecular change, attended by definite subjective sensations, these changes

depending on the peculiar organization of the individual, and the peculiar organization depending not only on nature but also on nurture. In the convenient formula of "nature and nurture" all influencing circumstances or conditions, are meant to be included, whether inherent quantities or external influences.

In this connection we may consider music as a therapeutic agent, not however until we have discussed some of its different varieties with reference to the use of the terms intellectual and emotional music. It is no fine drawn metaphysical distinction to consider the intellectual and emotional nature in man as essentially distinct.

While moderate mental and emotional processes are capable of being manifested at one and the same time, they are nevertheless measurably antagonistic, the exercise of the intellect having a restraining influence on the emotions, and the most exalted emotional states being wholly incompatible with the exercise of the full capacity of the intellect. The same ideas are conveyed by the use of the terms "Head and Heart," their often agreement and disagreement, and distinctive differences being alike freely acknowledged. An agent, or stimulus which is eminently capable of exciting or appealing to one of these functions, is correspondingly incapable of existing or appealing to the other. That class of music which requires intellect, and often a high degree of a particular culture to be appreciated in its grand harmonious combinations, is essentially different from those less complex melodies which excite the emotions without necessarily involving the intellectual faculties.

Music, which for its understanding and appreciation requires an elaborate programme, filled with the details of mythology, each succession of sounds representing a succession of actions or events, decidedly appeals to the intellect or the imagination; the emotions may be excited, but must necessarily be in subordination to those functions the exercise of which is necessary to the perfect comprehension of the piece.

Music is essentially emotional in its nature, and in proportion as any combination and succession of sounds lacks that quality it lacks its essential ingredient. To accept this definition we would perhaps be compelled to regard some brilliant compositions as non-musical, however much we might admire their successful mechanical execution: and to those who are incapable of feeling (on account of



sound) any emotional sensation, nothing is music. Can any other explanation than one in accordance with the above statements be given for the curious phenomenon of the intense pleasure experienced while hearing music in an almost unconscious state of sleep? That such is the case cannot be fully appreciated by all, some being too hard to awake, others too easy, and still others, there are, who are too deficient in the musical sense to appreciate music under any circumstances.

This phenomenon is somewhat like that of dreaming, differing however in being accompanied by a greater degree of consciousness, and in the heightening of the impression, whereas in dreaming we are not usually as much impressed as we would be by a realization of our dreams.

While a student at the University of Virginia I was often annoyed by a fellow student who would sing and play accompaniments on the banjo or guitar: the music was not particularly enjoyable, but the annoyance arose from the interruption to study: one night, being asleep, I was partially awake by the singing and playing of one of the customary tunes in the usual manner. Now, instead of being annoying, the sensation was delightful, and even afterwards the tune under all circumstances, was heard with more favor than before this occurrence. It is not that any sound is more agreeable under these circumstances, I am not aware that it is so of any unmusical sound, on the other hand the discomfort of many noises is very much intensified, while, being stupefied with sleep, the sensorium is capable of taking cognizance of them, but the reasoning faculties are held in abeyance. That certain faculties and organs do exercise an "inhibitory" or restraining influence over other faculties and organs, is, in one case at least, clearly demonstrated, viz.: the inhibitory influence of the pneumogastric nerve over the heart. It is the rule that a nerve supplying the part transmits to it a stimulus necessary to motility, or sensation, and the section of such a nerve is followed by a more or less complete loss of motion or sensibility in the part to which it is distributed; but section of the pneumogastric nerve fibres supplying the heart is followed by a more turbulent action of that organ. On the other hand when the nerve is divided, and an electrical current applied to it, it arrests the heart's action. The experiments of M. Onimus on the pneumogastric nerve would seem to throw a different light on its inhibitory function.

He says : "That an ordinary Faradaic current is interrupted from 30 to 35 times in a second, and that corresponds pretty well with the number of nervous shocks transmitted along special nerves so that striped muscles usually respond well to the stimulus : but, that "automatic and rhythmically acting organs, require some numerical relations to be observed between their rhythm and the stimulus, or the effect will be perturbation instead of increase of function." He found, "that if the pneumogastric nerves were stimulated by a current, interrupted at long intervals, (16 to 18 shocks per second), no arrest of the heart's action took place ; when the excitations become too rapid they cease to provoke functional acts and become causes of perturbation"—*London Medical Record*, January, 1877).

The theory of the inhibitory influence of a process of reasoning, or of any other intellectual act, our musical emotions will accord very well with the above views, if they are accepted as correct. It may be that the musical emotions are not restrained by mental activity of every sort and degree, but, as automatic and rhythmically acting organs, according to M. Onimus, require some numerical relation to be observed, between their rhythm and the stimulus, to avoid perturbation, so to avoid a partial suppression of musical emotion, carefulness is requisite in the association or combination of ideas or thought and musical sound. A somewhat analogous case is that of the somnambulist who, while perfectly unconscious, performs with safety, dangerous feats which he could not perform in the full exercise of his faculties. (It is a perfectly analogous case when one faculty, or mental process, being in abeyance another is permitted to run, riot, as it were, in highly exalted action). The increased intensity of the pleasure of music while heard when almost asleep, or when but partially aroused from a profound slumber, would seem to be explainable in no other way than this, viz. : that the common sensorium, or special seat of musical consciousness, if there is one, is capable of being excited by the proper stimulus, to a much more highly exalted state when not under the inhibitory or restraining influence of any other faculty, or perhaps of a different sort of consciousness. This would seem to show that music in its nature is a sensation or an emotion, which is excited by a combination and succession of sounds, and, that while it

may be associated with reason, or a train of thought, as in the setting of words to music, such association has an inhibitory influence on the musical sense proper, and any additional emotion, arising from that source, is in its nature non-musical.

The earliest account given of music as a therapeutic agent is in the Bible, "David took a harp and played with his hand, and said he was refreshed and was well." The restoring power of music, to a mind troubled like Saul's, seemed to be well known to his attendants who advised that agent. My experience of the effects of music on myself is that, in addition to momentary enjoyment and refreshment, it is also capable of relieving pain. I have repeatedly been relieved by it of a peculiar, but not very acute headache, the result of mental wear and tear, and have learned when it comes on, to seek music for its beneficial effects under such circumstances.

Now, as the functional exercise of the brain and nervous system in general, is attended by certain waste products, phosphates, cholesterin, &c., if music affects the brain by relieving mental wear and tear, it must diminish such products, and probably has through the vaso-motor nerves some influence on the calibre of the minute blood-vessels, thereby making its physical impress on the system. Persons afflicted with grief, as from the death of a near relative, would often be much benefited by music, even when disinclined to submit themselves to any enjoyment: but, when they do feel an inclination for necessary recreation, they are often restrained by the arbitrary rules of society. A lady of delicate physical organization and strong emotional nature, draped in the black emblems of mourning, and debarred from the exercise and recreation now more than ever necessary to her well being, is in a condition to contract disease of the nervous system, which may effect, not only her life, but that of future generations.

Recent experiments with the insane on Blackwell's Island have shown a marked potency in music in ameliorating the condition of many who were subjected to its influence. According to report the company of insane seemed much happier after, than before, the experiment. Some talked much more rationally, and in others the frequency of the pulse was much reduced.

If music is in the slightest degree curative of insanity it must be much more potent as a preventive: since the first manifestations of,

and tendencies to, insanity are generally known to be manageable, while the long established cases baffle treatment. The close relation that exists between mental and emotional states and physical changes of the human organism is well known.

The hair will turn gray in a short time from excessive emotion, and mother's milk, from the same cause, it is said, has caused the death of their infants; organic disease of the heart is greatly aggravated and may be caused by mental depression or morbid excitement; the secretions of the body may be increased or diminished, congestions of the brain and other organs may, and do, occur from this cause.

Persons are even bereft of reason, suddenly and permanently from fright, or shock of some other kind.

On theoretical grounds any agent which can excite such pleasurable emotions, as music excites in all persons not destitute of capacity for its enjoyment, ought to rank high as a therapeutic agent, and still higher as a hygienic measure. If music will reduce the morbid frequency of the pulse it will also reduce excessive temperature, and so prevent the oxidation and destruction of the vital elements of the body; to this end, might it not be used in acute diseases with those persons to whom it is positively agreeable?


But its greatest usefulness would seem to be in counteracting morbid influences (which render persons less comfortable and more susceptible to disease) and in substituting livelier or more agreeable sensations. As there are many differences in the "nature and nurture" of different individuals, and consequent differences in their likes and dislikes, so no one musical formula could be adapted to the wants of all.

And, while our experience teaches us that certain styles of music are suited to persons of certain temperaments, there is no better guide than the unbiased expression of individual preference. The cravings of nature, and the promptings of individual appetite, are not to be considered as mere useless freaks, they are too often the expressions of real wants. Herds of animals went hundreds of miles to get to the salt-licks centuries before physiologists knew that without common salt, from some source, they would slowly but surely starve to death. Human impulses require rational governance, but if a man's impulse to eat when he is hungry, to

draw near to a fire when he is cold, or to seek the shade of a tree from the scorching sun, are acts tending to self preservation, how are we to consider his great disposition to hear music except as of the same nature? The particular style that best pleases him is most likely best adapted to his real musical wants. From lack of opportunity he may not know what that style is, but present necessity can only be supplied by taking him at his present degree of development. Grant that there is an absolute standard of excellence in music (outside of the capacity of any musical arrangement for exciting pleasurable emotions,) and still we would have to consider, in regard to its adaptation to the wants of any individual, its relative excellence, just as we would in the case of a food which is classed among those easy of digestion, but for which a given individual may have no desire, such a food to such a person would not be easy of digestion.

Let no music critic therefore in the pride of his higher culture and assumed better taste, condemn as frivolous and superficial those simple melodies and lively airs which are most universally adapted to the popular taste: as well might he order another man's dinner, or ask him to wear a shoe that did not fit him.

Nor should any one hesitate to express his preference for any particular style; would-be connoisseurs will only ask what is fashionable, and will, of course, assume to like it although it may be as incapable of exciting their musical sense as a game of chess or a mathematical problem.



### A CASE OF "GANGRÆNOPSIS."

By HENRY G. PIFFARD, M. D., New York.

Surgeon to the Charity Hospital, etc.

Read at the meeting of the American Dermatological Association,  
1878.

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Sarah F., aged 1 year, was admitted to the Charity Hospital, April 15th, 1878. The child was accompanied by her mother, who was found to be suffering from constitutional syphilis. The child

exhibited the following lesions: ulcerations of tongue and lips, together with snuffles. There were also coppery plaques and tubercles disseminated over the vulva, buttocks and thighs.

The mother was placed on the protoiodide, and mercurial inunction was ordered for the child.

At my next visit to the hospital, two days later, I did not see the patient; but on the occasion of my next subsequent visit, three days afterwards, Dr. Culpepper (House Surgeon) called my attention to a gangrenous spot, an inch in diameter, involving a portion of the left *ala nasi* and the contiguous portion of the cheek. He stated that two days before, he discovered near the left ala, a small indurated nodule with an inflamed base. The surrounding tissues soon became red, glazed and infiltrated. Within eight hours after the discovery of the spot, it had assumed a black gangrenous aspect, which rapidly increased in area.

The mercurial inunction was ordered to be discontinued, and local applications of dilute nitric acid made instead, together with extra nourishing food, and hypodermic injections of quinine.

In spite of treatment the gangrene rapidly extended until it had involved nearly the whole of the face, and the child finally succumbed, April 28th, thirteen days after admission, and ten days after the first development of the gangrenous lesion. But one hypodermic injection of quinine was given, as a few hours after the injection its site became gangrenous.

*Autopsy*, (by Dr. Maxwell, Curator).—Length of body 28 inches, circumference of head 27 3-8th inches. Nose, upper lip and adjoining border of cheeks destroyed. The base of destruction presents a black, dry gangrenous appearance. At the border, a narrow zone of apparent demarkation; beyond this the adjacent tissues are greenish-black to the extent of an inch from border of destruction. Eye-lids and cheeks moderately edematous. Underlying the gangrene the malar bones and hard palate were found necrosed.

*Head*.—The skull bones, dura mater, sinuses, brain substance and vessels were normal.

*Thorax*.—Pulmonary pleuræ show here and there miliary subpleural hemorrhages. Posterior border of left lung shows a line of localized pleurisy overlying thick clusters of lobular pneumonia in the gray stage. Lower lobe of left lung almost completely con-

solidated by thickly set foci of lobular pneumonia mostly in the gray stage. A few of these have gangrenous appearance and odor. Upper lobe of right lung pale except base, where there are three patches of lobular pneumonia in red stage; lower lobe similar patches.

*Heart*.—Normal, cavities nearly empty: blood throughout the body thin—cherry-juice like.

*Larynx*.—Mucous membrane of epiglottis shows enlargement of the glands.

*Liver*.—Seven and a half inches in length,  $4\frac{1}{2}$  inches in breadth,  $2\frac{1}{4}$  inches in thickness, weight  $15\frac{1}{2}$  ounces. General color, reddish, but in places yellowish white. The interstitial tissue, appears as streaks of pearly hue (interstitial hepatitis).

*Spleen*.—Weight 2 ounces, firm on section. Malpighian bodies large and yellowish in color. Trabeculae enlarged.

*Stomach, Pancreas and Kidneys*.—Normal.

*Mesenteric glands* are enlarged to average size of a split pea.

*Small Intestine*.—Agminated glands throughout are swollen and pigmented. In lower portion of ileum some of Peyer's patches show individual lobules which are larger than others and have reddish color.

*Colon*—Evidences of catarrhal colitis of moderate severity.

*Remarks*.—In times gone by, when mercury was more freely used than at present, cases similar to the one related were by no means excessively rare. This one, however, is the first that the writer has had the ill-fortune to encounter. As regards the etiology of this case but two hypotheses seem tenable. It was either malignant pustule or mercurial gangrene. Which of the two it was, the writer feels himself unable to positively decide, the probabilities, however, he thinks, are in favor of its having been a case of mercurial poisoning.

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*A Correction*.—An examination of the cuts in the English edition of "Rest and Pain" satisfies us that the illustrations in Wood's Edition are fac similes and in no way inferior. By a slip also in our November number we put the price at \$2.00 a year when it should be \$12.00 We recommend our readers to subscribe to these books, feeling satisfied that they will find them *excellent and cheap*.

## COUNTRY CLINQUES.

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### III—FRACTURE OF TIBIA AND FIBULA—PNEUMONIA— VENESECTION—AFTER TREATMENT OF FRACTURE —REMARKS.

BY A NORTH CAROLINA PHYSICIAN.

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John V. æt. 24 years, an exceedingly robust man, weighing 225 lbs., in attempting to jump out of a wagon, sustained an oblique fracture of both bones of the leg, three inches above the malleoli. No other material being available an excellent temporary support was made out of an old gunny-bag and an armfull of hay. The fracture was reduced, the limb surrounded by a broad piece of the bagging, thick wisps of hay placed around this and confined by strips of the bagging. Patient was carried a mile or more in a wagon, and the limb needed no further adjustment when it was taken out of this dressing to be placed in a fracture box.

On the morning of the third day after the accident, patient complained of a cough which had troubled him during the night. It was tight and paroxysmal, the scanty expectoration being streaked with blood. He assured us that he was subject to such a cough, and had frequently spit up blood before. There was no increase of pulse-rate, no heat of skin, nor had he experienced any chillness. The lungs were carefully examined, with only negative results. A dose of comp. cath. pills was administered, and he was directed to take twenty drops of the wine of ipecac every two hours. At noon the cough was worse, pulse 90, respiration 20, temperature  $99\frac{1}{2}^{\circ}$ . Slight dulness and crepitation were found over the lower third of the right lung. The bowels had been well moved. Ipecac was continued. Ten grains of cinchonia sulphate were given—the dose to be repeated every four hours. When next seen at 8 P. M., pulse was 110, jerky and irregular, respiration forty-eight, skin cool to the touch, and temperature  $101^{\circ}$ . Breathing was labored—patient having to be supported nearly upright in the bed—face had a dusky hue, patient was drowsy and stupid. Sputa consisted of frothy bright blood. Dulness and crepitation were marked over the whole right lung, while with the harshened respiration, mucous râles, coarse and fine, were heard throughout the left lung. A mustard



plaster over the whole chest, afforded no relief. The median basilic vein was freely opened, and a quart or more of blood allowed to flow. The bleeding was only stopped upon patient's complaining of faintness and nausea. The effect upon the symptoms was immediately perceptible. The cyanosis disappeared, breathing was relieved, and the sensorium became clear. The pulse was not markedly affected, nor was respiration much decreased in frequency. Next morning the pulse was still 110, but firm and regular, temperature 101°, while respiration had fallen to 28. Dulness over the right lung had receded to the level of the fourth rib. Below this bronchial respiration was heard, above, there were moist sub-crepitant râles, and at the apex the vesicular murmur. The expectoration presented the ordinary characteristics of acute pneumonia. The left lung was clear. Six doses of 10 grs. having been taken, the cinchonidia was discontinued. Wine of ipecac was given *pro re nata* until recovery. Resolution was established on the fifth day.

Patient's limb was now enclosed in a plaster of Paris bandage. After remaining five weeks, this was removed, showing union of fibula, but considerable mobility of the fractured ends of the tibia.

Supporting the limb by  $\frac{1}{4}$  inch binders' board, I directed patient to bear weight upon it. After three days, pain and swelling preventing further exercise, the limb was more securely supported, and patient put to bed. In three weeks mobility had ceased, and so much provisional callus was present, that patient was allowed to take gentle exercise. A roller bandage was used for several weeks longer on account of swelling of the unsupported limb. The result was firm bony union with gradual absorption of callus.

I have great faith in the efficacy of large doses of the cinchona salts, in all stages of pneumonia. Latterly in my practice, the cinchonidia has entirely superseded quinia, it being cheaper and giving equally good results. A few years ago I attended a patient for pneumonia of the lower two-thirds of the right lung. He had been previously affected by malaria, and on the third day of the disease. I found him in a congestive chill. Fortunately he was able to swallow, and there was no nausea. I administered 20 grs. sulph. of quinia, in an ounce of whiskey, and in an hour repeated the dose, supplementing the medicine with friction, mustard poultices,

hot bottles, &c. At patient's urgent request—reaction having now set in—one hour later I gave the third dose without the whiskey. Twelve hours afterwards, with the exception of moist, coarse râles over the affected portion of the lung, all symptoms of pneumonia had disappeared.

In the case before us, immediate action was necessary. One lung was completely overwhelmed by the inflammation, the other nearly paralyzed by œdema. The result will best answer any criticism upon the treatment.

Bleeding when practiced with the thumb lancet, is a most awkward performance. The vein slips from under the point of the instrument, if the attempt is made to cut cautiously, while a bold thrust jeopardizes the underlying artery. To my friend, Dr. J. F. Shaffner, of Salem, N. C., I am indebted for the following suggestion: When the vein is made prominent by compression of the arm above, the point of a narrow curved bistoury is thrust in a slanting direction, through the external parts and into the vein. By cutting outwards, the canal of the vein serving as a director, the opening may be enlarged at pleasure without difficulty or danger. By the same plan, in opening abscesses, &c., I am satisfied that I have saved my patients a great deal of unnecessary suffering. Cutting out must be less painful than cutting down, which momentarily increases the tension of inflamed tissues. A most unsurgical practice is that of splitting the finger to the end of the phalanx, in opening a felon. If the point of a narrow bistoury be thrust down to the bone, the deep fascia or periosteum may be readily divided to any extent, by simply inclining the point of the knife towards the extremity of the affected phalanx. The small external wound, (which can be enlarged, if for any reason this is preferred, as the knife is withdrawn), is ample for the escape of pus which has or may form, and entirely prevents the disgusting deformity of the finger, which is the result of the splitting process.

We reply to Dr. B., of Boston, that as far as we can learn, there is but one homœopathic doctor in North Carolina, where there are about 1200 doctors.

## SELECTED PAPERS.

### THE YELLOW FEVER AT HAVANA—ITS NATURE AND TREATMENT.\*

By CHARLES BELOT.

So many volumes have been written upon yellow fever, that it requires a certain courage to venture to augment their number. But I have determined to take up the pen, because I will in some measure present new results, based upon a constant labor of more than twenty years.

Placed at the head of the establishment founded by my father, a field of almost unlimited observation, where I have had the care on an annual average of a thousand patients, I have been able, after eighteen epidemics, to collect an incomparable body of facts, and to observe this disease in its most diverse forms. I have put under contribution the researches of my father, who has preceded me in this work. Seconded by my brother, we continue our study of the alterations of liquids, which will make the subject of a new memoir. As for autopsies, it is by the thousand I could count them. In my desire to tear her secret from nature, I have experimented with patients, who had scarcely ceased to live. In a word, nothing has been neglected to reach the discovery of the truth.

Yellow fever may be traced to three types: the continued, the remittent, and the intermittent: and in this division there is nothing arbitrary. Determined by nature, they have been ascertained by the most scrupulous observation, and I will prove that all the facts so group themselves without effort.

Havana, sadly renowned for its great number of victims to yellow fever, is situated in the 23d degree of north latitude.

Its harbor, one of the most beautiful in the world, presents a long and narrow entrance, which expands into a basin three leagues in circumference. Elevated hills protect it against the northern

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\*Translated by Col. John Scriven, of Savannah, Ga., who was so impressed with Dr. Belot's memoir that he has with commendable skill and diligence given the paper to the public, "feeling that humanity may claim any contribution, that could tend to prevent the recurrence, and alleviate the suffering, and diminish the fatality of the yellow fever epidemic, of which he was a witness in 1851 and 1876."

winds, but it is entirely exposed to the south. The city, built on the west side of the roadstead, has narrow streets; the houses are generally constructed with a ground floor on the level of the earth. In latter times, the spirit of speculation has increased the number of lofty houses; but it is in the commercial quarter, where are found in store great masses of food substances, easy to decay, that the greatest number of inhabitants are collected. New comers ordinarily lodge in the midst of this, which, in the rainy and hot seasons, becomes a centre of infection. The commercial quarter is placed in the lower part of the city, near the quays, where vessels lay, precisely where the sewers are voided, and their emanations received by seamen. After a heavy rain, these sewers are washed out, but the harbor is filled with putrefying substances, and this perfectly explains, why the greatest number of sick and the gravest cases come from vessels touching the quays, and from the stores and commercial houses situated in this quarter.

A single stream empties into the harbor. It brings the offal and blood of the shambles. On the bank of this stream are the gas works, which cast into it the offal of gas preparation. In this locality is situated the military hospital, large enough to accommodate fourteen hundred patients. It is not surprising, that this establishment furnishes in the statistics the greatest mortality.

The city is surrounded by walls and ditches. Exterior to these is the beautiful district where the streets are wide, the buildings are spacious, the provision stores less numerous. Here the sewers empty into the open sea. Although these houses may also be damp from the nature of the soil, it is evident, that the number of the sick diminishes, as the causes of paludal miasma are farther removed. The harbor and the city are surrounded by villages built on the heights, where the air being less vitiated, yellow fever is little known, and the cases presented there are contracted in the city.

Observing the topographical features of the harbor, one discovers, that all the anchorage grounds are not selected with a view to their healthfulness. Vessels which, through the ignorance of their captains, are sheltered from the east winds, are the first to incur sickness. On the side of the city situated to the west of the roads, on the north side, and in some places on the east side, there are wharves for the discharge of vessels, but everywhere else around

the harbor, the shore remains in its natural state. This shore, about two leagues in extent, is uncovered and exposed to the action of the sun by the fall of the tide, which at Havana is from two and a half to three feet. The police of the harbor is not well performed; while filth, dejections of crews, and even dead animals are thrown upon the shores by the movements of the waves.

In front of Havana is the village of Regla, situated on a point of land which projects towards the middle of the roadstead, and divided it into two harbors, one to the east and the other to the west of Regla. On the east side are magazines of molasses, from which an infectious odor is exhaled, and on the west side are wharves for steam vessels and immense warehouses for merchandise.

On the north side there are high hills, at the foot of which is the village of Casa Blanca, where are the coal depots for steam vessels and wharves for the construction and repair of vessels.

This point which is not refreshed by winds from the east, is fully exposed to the south; so this is the most unhealthy part of the roads.

*Acclimation.*—Man is cosmopolitan, but upon condition that he undergoes an alteration of individuality, which is termed acclimation. Often passing triumphantly through it, how often, too, he sacrifices his life in this ordeal!

As we descend toward the tropics, the temperature is elevated, the air is rarefied by that physical property by which gases are expanded by caloric; transpiration commences, the heat dilating the pores of the skin facilitates perspiration, the urinary discharge diminishes, the veins bear a thicker liquid to the liver, the functions of which are affected. When the blood reaches the lungs, it finds the air dilated by heat, and containing in the same volume less oxygen than the air breathed in temperate climates.

The atmosphere of Cuba is generally warm and always humid. The thermometer descends in winter to 16° the centigrades (60.88° Far.) and rises to 38° centigrades (100.4° Far.) in summer. During the latter season, the humidity of the air is greater than in winter. Daily rains are constantly followed by an ardent sun, which makes the atmosphere a veritable sweat-house. During these storms, incessantly renewed, an extraordinary electrical tension is felt. Such are the surroundings in which the stranger comes to live.

The thermometer in the hot season, has a constant and invariable progress, which we have found at 4 o'clock in the morning 23.20° Reanmur (84.20° Far.) ; at 8 o'clock, 27.40° (93.65° Far.) ; at 4 o'clock in the afternoon, 19.60° (76.10° Far.) ; at 8 o'clock in evening, 26.40° (91.40° Far.) ; at midnight, 22.20° (81.95° Far.).

The hygrometer indicates a mean of 93°.

After sunset, the temperature lowers, the air condenses, but at the same time the dew is so abundant, that we have seen it fall in little drops. The changes of temperature, the sensations of coolness are causes contributing to the development of disease. The condensation of the air is much greater under lunar influences. This fact, unexplained to this day even, is unanimously accepted by the medical men of the country.

The winds prevailing at Havana during the hot season, that is, from May to October, are from the north, northeast and southwest. During the day, they blow from the Gulf and from the northeast ; during the night, they come from the land. But from June to September, the winds regularly prevail from the south. Dangerous to themselves, their harmfulness is increased by miasmata absorbed from the surface of the island, the entire width of which they traverse.

If the atmosphere is not the only cause of the disease, it exercises at least a great influence upon its development. This explains the reason of the existence of yellow fever on the shore and not on the mountains, and in localities distant from the coast some leagues in the interior. Miasmata from their peculiar gravity tend to remain on the level of the soil. So the unfortunates, lodging in low, humid, contracted places, are the first and the most roughly tried. For stronger reason, the danger is imminent on board of vessels constantly exposed to emanations from the roadstead, and to the mephitic matters which compose their cargoes.

Under the influence of heat, the body is little disposed to movement, and digestion becomes more difficult. The seaman, forbidden to go ashore, is fed with salted meats of indifferent quality, he drinks unfiltered water, containing prodigious quantities of animalculæ, and this double cause exercises a pernicious action on the stomach and digestion.

It is seen, then, what peril attends him who for the first time

faces a residence at Havana. He will certainly not escape the yellow fever, at least in its mildest form, ordinarily called the fever of acclimation. Of this we will treat further on. But to enter on our subject positively, we proceed to describe the symptoms of yellow fever in its severest form :

SYMPTOMS—ACUTE SUDDEN CASES.

Attack sudden, ordinarily at night, characterized by violent chills, immediately followed by insupportable headache ; severe pain in the loins ; feeling of lassitude in the joints, especially in the knees ; bad taste in the mouth ; tongue sometimes clean, sometimes saburral and whitish ; weakness overwhelming. Sometimes the attack occurs abruptly in the day, after a meal, or after violent exercise or a long walk in the sun. Here there is no chill, but intense headache and great heat, dry skin, burning over the body, eyes protruding, conjunctiva strongly affected, face red, pulse strong and frequent, thirst dreadful, breath hot, pains in the limbs, loins, and joints, as before mentioned.

Left to itself from twelve to twenty-four hours, the malady makes rapid progress. The headache increases ; the patient feels an oppressive weight on the chest ; he sometimes has a disposition to vomit. Applying the hand to the stomach, the beating of the coeliac trunk is distinctly felt, and the pain is so great, that the patient cries out at the least pressure ; the gums swell and become of a livid red color ; the tongue, red on its borders, tends to dryness in the middle : the breath has a peculiar fetid odor ; thirst is very intense ; the conjunctiva has a yellowish tint ; the look acquires a fixity, which gives the physiognomy an appearance of hebetude ; the patient is in profound sleep, from which it is difficult to wake him, or in a state of inquietude or of violent agitation ; the skin remains warm, the pulse full, strong, frequent ; the urine clear or charged with albumen, in quantity more or less ; the pain in the loins is insupportable.

In twenty-four to thirty-six hours the case is aggravated. The blood is directly altered in its composition : the general heat diminishes, it may be without the presence of perspiration ; the color of the skin changes, becoming at first clear, and then of a lemon yellow ; the patient complains less of the head, because the sensations become obtuse ; soon the eyes become haggard : a brick-

red tint penetrates through the yellow color of the conjunctiva, the pupils are contracted, the tongue dry and rough, the teeth fuliginous, a burning sensation and excruciating pain in the epigastrium.

At this period commences the vomiting, at first clear, then greenish yellow, loaded with shred-like follicles of mucous membrane, then entirely black, composed of clotted blood like coffee-grounds; the urine very dark, exhibits tints from yellow to brown, and contains considerable albumen—sometimes it is completely suppressed: finally the dyspnœa increases, delirium supervenes, and the patient dies between the third and the fifth day.

Such is the acute epidemic vomito, abandoned to nature. In this description, three well defined periods are apparent. The *first* characterized by headache, pain in the loins, lassitude, weakness of the limbs, pain in the joints, bad taste in the mouth, constipation or diarrhœa, and a union of general symptoms, violent in proportion as they attack a constitution more vigorous and athletic.

The *second* period, that of its localization, presents the pathognomonic signs of the disease, namely: pains in the stomach, commencement of dyspnœa, swelling of the gums, *presence of albumen in the urine*; symptoms which boldly characterize yellow fever.

Finally, the *third*, which constitutes the typhoid stage: Altered blood, the diminution of heat, alteration of the nervous system, suppression of urine, dyspnœa, delirium, etc., etc.

#### ORDINARY CASES—FIRST PERIOD OR PRODROME.

This period is not always distinct. Its duration varies perceptibly. Often the disease is neither rapid, regular, nor intense. The first period may be prolonged over twenty-four hours; the symptoms which characterize it may differ according to the place where, or the circumstances by which it was generated. The symptoms are often so light, that the nature of the disease is unappreciated. Sometimes sudden chills, followed by general heat, are observed; the skin is dry or covered with sweat; the patient complains of lassitude, of pain in the knees and thighs, and of extreme weakness; the headache, ordinarily intense, is sometimes very slight. The pains in the loins do not always occur in the beginning, and may not until the third day. They are often the most prominent symptoms—in this case nothing relieves, nothing soothes the sufferer.



The eyes may not present any appreciable symptom. Often they are strongly injected. The globe of the eye becomes painful in the movements of rotation, and very sensitive to light. In general, this pain is in proportion to the headache. The nausea and vomiting do not occur always with the same intensity. The patient may not complain of pain in the epigastrium, or liver, or spleen ; the urine may be clear, natural, abundant. The pulse frequent and full, varies from 90 to 120 beats, and more per minute. The state of general uneasiness may last three, and even four days.

It would seem incredible this description can be connected with the disease called yellow fever ; but the disease is itself delusive. It may be mistaken for debility or a cold. It should not be forgotten, that the symptoms depend above all upon the surroundings in which the disease is developed and upon atmospheric conditions. I insist the more upon this point, because it enters largely into the therapeutic indications at Havana. The disease does not exhibit the same intensity in the city as in the harbor, and the symptoms often differ much in the same epidemic.

The state of the atmosphere has an extraordinary influence upon the symptoms. If the weather is dry, the temperature high, if the wind comes from the South, cerebral symptoms of an inflammatory character predominate. If the temperature is comparatively low, and the air charged with humidity, extreme lassitude, pains in the loins, characterize the introduction. Other distinctions will be observed if the patient has been seized after a repast, and the stomach filled with food. Vomiting will occur in that case, and the intestinal apparatus will suffer more.

All these circumstances explain the different modes of attack, we have described.

The diversity in the appearance of symptoms often obscures the diagnosis, where the disease is not epidemic. Inexperienced physicians can confound it with bilious, rheumatic, or even with eruptive fever, or with a simple chill. My father, in the times when the doctrine of Broussais flourished, admitted four divisions of yellow fever, which he called types, namely : Acute gastritis, gastro-meningitis, meningo-hepatic gastritis, and colo-enteric gastritis. These divisions cease as soon as the disease completes its evolution.

Many medical men pretend that yellow fever is not the same in all years ; but this is not correct. That which varies is the mode of attack ; but, when this period is passed, the same organs are always found to be affected ; and so, too the diagnosis is not positively unexceptionable, until the introduction of the second period,

Often the disease does not pass beyond the premonitory period and yields to well directed treatment. In this case it is called fever of acclimation, and is most always a sufficient protection against yellow fever.

I will not revert to the symptoms which characterize the second period, the description I have given seeming to be sufficient ; but I will dwell anew upon the symptoms observed during the third period. This is determined especially by the complete decomposition of the blood, resulting from the deep alteration of the nervous system. Its duration is from two to seven days, and even more, if the disease terminates happily. This is the typhoid period "par excellence," as when cerebral alterations predominate, it might be called the typhus cerebral type with all its most prominent symptoms. So, also, when there are alterations of the coats of the intestines. The autopsy then discovers the cadaverous lesions belonging to abdominal typhus, lesions determined before death by the suffering on the level of the right iliac fossa, gurglings, and petechial spots.

If the cerebral symptoms predominate, the patient is agitated by violent delirium, and his condition often demands the straight-jacket. With some subjects the delirium is gentle, the hearing is lost, and the patient sinks into coma.

When abdominal symptoms prevail, the brain is sound to the last moment, and the patient preserves his intelligence. The eyes give to the physiognomy an expression of peculiar hebetude ; at other times, sunk into their orbits, they present a choleraic aspect. The tongue dry, rough, hard to the touch, is black toward the middle : the gums bleeding, become ulcerated as with scorbutics, or those who have been abused with mercury : the blood, resembling a sanguinolent sanies, drains through the commissures of the lips, by the nostrils, by the anus, and by the vagina : petechiae form upon the skin : the breath has the fetid odor of a putrefying body.

Sometimes hemorrhage does not take place. The tongue remains humid, and is charged with a whitish paste adhering to the finger when it is raised. The gums enlarged and swollen bleed but little, or not at all. The pain at the pit of the stomach is intense, and the pulsations of the celiac trunk are perceptible to the eye. The sensation of burning in the throat produces great suffering, especially during deglutition. Soon the hiccough augments this state of suffering: dyspnœa follows the increase of pain in the epigastrium. The color of the vomit is modified: from bilious it becomes black, or the clots observed in the second period increase, and are changed to a substance resembling coffee grounds. The matter of the vomit is sometimes very abundant, and the patient, who in his delirium casts it upon his bed, presents a hideous spectacle. This delirium is violent or mild. Let us still mark the subsultus of the muscles, the carphologia, the convulsive and tetanic movements, the sometimes general trembling of the body, in which the facial muscles participate. The pain in the right iliac fossa existing in the second is augmented in the third period. The urine is suppressed or becomes deep yellow, more and more albuminous, thickened, and sometimes stained with blood.

The stools, which are diarrhœic, are clotted at the commencement of this period. This clotty matter is of a gray ash color, and sinks to the bottom of the vessel. The skin changing its color, assumes a shade from yellow to a deep yellow, almost black. It becomes cold and is sometimes covered with icy sweat. The pulse presents a singular phenomenon. In certain cases it is not in connection with the state of general disorganization which the other symptoms indicate, and often it will be difficult for a medical man, who did not at the same time see the patient, to suspect the gravity of the disease. It gives from sixty to forty-eight pulsations per minute, and only the irregularity of its beats points out the danger. Sometimes these irregular beats are frequent and depressed, and twenty-four hours before death may disappear. This happens almost always when the urine is suppressed. In this state, the glandular system is seriously affected, the parotids become engorged, and the seat of abscesses, which make a grave complication. Other abscesses form deep in the members. They last a long time, and are as much more difficult to heal as the general state of decompo-

sition is more advanced. Sometimes the disease terminates in spontaneous gangrene. The scrotum becomes covered with blisters, followed in certain cases with mortification. This sign is always fatal.

There may be seen carbuncular eruptions scattered all over the body, and tumors formed on the joints. These last symptoms, far from auguring ill, prolong the course of the disease, and leave a hope of cure. The duration of the third period may extend to eight days. In this event convalescence is very long.

Having passed in review the course of the acute, epidemic, sudden disease, lasting not more than two or three days, and then in the most ordinary cases, where the succession of symptoms does not work out with the same violence, we proceed to examine one by one each of these symptoms, and will indicate the different circumstances proper to make clear the diagnosis and prognosis of yellow fever :

*Chills.*—The disease, we have already said, is sometimes introduced by chills, the intensity of which is very variable. These are sometimes light, overrunning the body, or are confined solely to the back and loins, sometimes with convulsive trembling, as in intermittent fever. When violent, they last scarcely two. when light, they may continue for twenty-four hours. In all these cases they are accompanied by concentration of the pulse, and when they cease, are replaced by febrile heat. The cases introduced by chills during the night always show a well defined remission or even an intermission. This period of remission, almost of apyrexia, sometime occurs after the first twenty-four, at other times forty-eight hours after the attack. It is necessary for the practitioner to give close attention to this symptom, because, with the intermission, there is a coincident improvement in the morale of the patient, who believes himself entirely restored. He feels weak, and asks for food. The inexperienced physician who makes this concession will not be delayed in his regret. The period of exacerbation is not distant, and with it come too often fatal symptoms. The attack with chills takes place when the temperature is low, and the patient having been warm, is exposed to damp or to currents of air.

*Heat.*—After the chills the skin becomes burning, dry, and soon an abundant sweat is manifested. This is a good indication. When

the febrile heat has not been preceded by chills, it is rarely followed by sweats. It is a grave symptom, when it persists night and day with undiminished intensity. This symptom is developed above all in robust subjects, who having been exposed to a fierce sun during a drought and during a wind from the South, are seized in the middle of the day.

When the heat is followed by sweats, there is hope; but when, despite treatment, the dry heat continues without intermission, it becomes a very serious symptom. The first period of the disease passed if there is a remission, it is rare that the heat recurs with all its intensity, even in the gravest cases.

*Cephalalgia.*—The headache, slight in the beginning, when the disease starts with light chills, increases in intensity at the moment of reaction, and diminishes anew with the remission; but this symptom is cause for anxiety, if the pain begins accompanied by strong heat of the skin—above all if the pain is shooting, punitive, and of extreme violence. The headache may be frontal, supraorbital, sincipital or may invade the whole head. More serious in proportion to its persistence, it may last twenty-four hours or more. When it is accompanied by gastric symptoms and continues after these have disappeared, typhoid symptoms will not be delayed. If the headache ceases after the first period, it is very rarely renewed in the second, less in the third, but often it does not yield, and constitutes one of the alarming symptoms of the second period. Headache is almost always the symptom with which the disease commences. The patient complains solely, of pain in the head—the other symptoms would not appear until twenty-four or forty-eight hours after. In these cases the cephalalgia is not very intense.

*Delirium.*—When the cephalalgia is violent, it is often accompanied by delirium. The patient is sometimes furious, sometimes in a state of complete hebetude or in a coma, from which he cannot be aroused without difficulty. This symptom is extremely dangerous. When delirium accompanies the cephalalgia from the first period, it disappears with it, but when it comes towards the end of the second or third, it ceases only with death.

*Photophobia.*—Violent cephalalgia and delirium of the first period are most often accompanied by photophobia. It is one of

the symptoms of the attack. It rarely lasts more than twenty-four hours : but when it is prolonged and accompanies the symptoms of the second period, sudden death is imminent. The eyes may preserve their normal aspect, but they are often injected with blood, and then become glittering and tearful. Often the movements of the ocular globe are accompanied by acute pain.

Towards the second period the eyes assume a peculiar character. Upon the red color of the conjunctiva a yellow hue is presented, which combined with the red becomes an orange-color. These first signs of jaundice appear on the conjunctiva. Towards the third period the capillary vessels of this membrane participate in the general weakness, and bleed through the commissures.

More or less dilatation of the pupil should also fix the attention, because it reveals congestion of the brain. When, toward the end of the second and of third period, the pupil is immobile and insensible to light, it indicates cerebral effusion, which will occasion death.

*General Pains.*—The pains in the loins and in the joints have not always the same intensity. The former do not appear sometimes until the third day, and then are feeble, or at least endurable ; sometimes they begin with extreme violence, and nothing, unless friction is continued, can alleviate the suffering. This pain lasts ordinarily from one to three days, and its violence is generally in proportion to that of the attack. It is accompanied by pain in the knees and weakness in the lower extremities. The more acute the case, the more violent the symptoms. The patients cannot hold themselves upright—they fall back while being examined. These pains persist during the first and sometimes during the second period, and may extend to all the joints.

*Tongue.*—The symptoms of the tongue present great variety. Sometimes natural, they do not indicate any change in the coats of the intestines. At other times it is white, large, charged with mucous deposits. When the disease has opened with chills and the intestinal system has not commenced to suffer, it is natural, and remains so during the first day ; but if the gastric symptoms are developed in the onset, and above all if the disease begins with indigestion, the tongue is white, charged with mucous deposits, and the patient complains of a bitter and disagreeable taste. Sometimes

it is white in the middle and red towards the borders, in the degree that the gastric symptoms take the ascendant, or it becomes dry in the middle : then towards the point it shows a blackish stain, rough to the touch—(a symptom of the second period). At other times it is sticky, covered with a pasty and clammy mucus. This is still a symptom of the second period, but it gives a certain hope, because in general its presence excludes the probability of hemorrhage. Often the tongue is entirely dry and rough as a rasp, the patient has great difficulty in showing and drawing it back into the month, indicating a typhoid condition of great gravity. Sometimes it becomes bloody, and is covered with mucus thickened and mixed with blood. In these, the gravest cases, it is half paralyzed, tremulous, and seems to escape the influence of the will. Finally, it is not infrequent to see the disease accomplish all its periods without the tongue presenting any morbid sign.

*Gums.*—The gums often aid us in the diagnosis of the different periods of the disease and of its gravity. In the first period, it is *very rare* that the gums are not natural ; as soon as they become livid, swollen, engorged with blood, the prognosis becomes grave. Painful to the touch and bloody on pressure, they present one of the pathognomonic signs of yellow fever reaching the second period. They are rarely ulcerated, but they are often fuliginous, covered with a thick, blackish, glutinous mucus, clinging to the teeth, and exhaling an odor comparable to that of macerated organic matter. The lips are also dry ; the lower lip falls as if paralyzed. This symptom belongs to the third or typhoid period. Yet the gums are the seat of passive hemorrhages, which do not always constitute a bad symptom.

*Breath.*—The breath in the first period offers nothing special ; but when the disease becomes localized, when the mucous membrane of the stomach begins to be affected, if the breath of the patient is examined, there will be recognized an odor *sui generis*, which cannot be described or forgotten. Toward the commencement of the second period there is a sweetish odor, recalling that of catarrhal mucus ; but soon it approaches that exhaled by old bits of beef. When the blood enters upon decomposition, and above all when the stomach encloses the black matter of which we have spoken, it would be called the odor of a putrifying fen. I mention this here.

as my father is the first who fixed the attention of practitioners upon this capital sign in a diagnostic point of view.

*Thirst.*—Sometimes there is no thirst, again it is burning and inextinguishable. I have seen sick seamen throw themselves into the sea, because they were refused water. This excruciating thirst is one of the gravest signs.

*Respiration—Dyspnoea.*—During the first period of the disease, at least when the fever is not very acute, the respiration does not exhibit any sensible alteration : but it is accelerated or diminished according to the acuteness of the period of heat. But towards the second period, when the patient feels a weight upon the stomach, the respiration begins to present certain signs, which the physician can easily appreciate. The patient sighs as if the air were about to fail him : he draws deep breaths, accompanied by groans and complaints. Still he is unconscious of his condition : but soon dyspnoea takes place and breathing is painful. This symptom, always grave, often presages death. It occurs most often in cases of black vomit, and above all when the intestinal apparatus is suffering.

*Stomach—Intestines.*—The epigastric region is often the seat of pain, varying in intensity according to the period in which it is presented. Sometimes it exists in the introduction of the disease, especially following indigestion or excess with liquors. This pain yields ordinarily in the first period to well directed treatment. But it is otherwise when it is presented after twelve or twenty-four hours in the acute type, or on the third or even fourth day in ordinary cases. It always indicates affection of the gastric mucous membrane. This pain, at first dull, like the sensation of a weight on the stomach, acts upon the diaphragm and renders respiration difficult. Augmented by pressure, it sometimes spreads to the right, towards the liver, at other times to the left towards the spleen, and is always an alarming symptom, above all when it is accompanied by throbbing of the coeliac trunk. Most severe when the patient draws a deep breath, it increases little by little in intensity and becomes insupportable : coincident with it is a sensation of burning in the throat and in the passage to the stomach, a sensation so painful, that deglutition becomes nearly impossible. As this symptom rises, dyspnoea increases, and the diaphragm seems threatened with paralysis. The epigastric pain, accompanied by coeliac throbbing, constitutes one of the gravest signs.



All these symptoms characterize the third period, and generally terminate in death. Sometimes they are accompanied by vomit, which is at first a colorless acid substance, and later proves to be black vomit.

*Vomiting.*—The vomiting, as a symptom, plays a very important part in yellow fever. As it frees the stomach when it appears in the introduction of the first period, it is a good augury, provided it does not become persistent. If it continues after the first twenty-four-hours, it is a bad sign. Sometimes the sick are tormented with nausea; the qualms are incessant, but the most violent efforts bring no ejection. This symptom, always very grave, is often the sign of a fatal termination. At other times the patient easily vomits all he takes, and the vomit is *clear*, and so acid as to produce a burning sensation in the throat, or it contains at first little grayish clots, which soon assume a deeper tint, and appear to be formed by mucous follicles from the stomach.

Again the vomit is yellow, bitter, bilious, then becomes a deep green, thickens, and sometimes leaves in the vessel an adherent deposit like the substance which the ancients called atrabile. In most instances it is followed by *black vomit*. The material of this is not always the same. Sometimes it is a liquid blood, a veritable hemorrhage, oozing from the capillaries of the gastric mucous membrane. Sometimes the blood supplied by buccal and nasal hemorrhage, but swallowed by the patient, is thrown up afterwards, so simulating black vomit. This should not be allowed to deceive, because the difference is essential to the prognosis. Sometimes the vomit shows a deep brown powder, comparable to coffee-grounds in suspension in a liquid of the same color. This may be exhibited at the first onset or fail altogether. Patients may be seized suddenly with abundant black vomit thirty-six hours after the attack, while others die without having thrown up this matter, and even without having vomited, but the autopsy discovers the black vomit substance in the stomach. Tasteless, insipid, bitter, etc., the savor of this matter is very variable. Under certain circumstances it reddens litmus paper: again it stains blue, litmus paper reddened by acid. Its characteristic odor is analagous to that of macerated marine substances. It is nauseating, and leaves a persistent sensation on the olfactory organs. The color of black vomit varies according to

the nature of the elements of which it is composed. It may exhibit shades of reddish brown, deep brown, chocolate color and coal black. When it is formed by coagulated bile, there is always hope of the patient, and as long as the vomit is not wholly of the consistency and color of coffee-grounds, there is no reason for absolute despair.

Black vomit is sometimes formed of flakes or clots suspended in a colorless or slightly colored liquid, clots which readily fall to the bottom of the vessel, or present themselves in a compact mass containing little liquid : sometimes the liquid in which it is suspended is reddish or deep red, in color and consistency resembling a sanguinolent sanies, like the washings of meat.

Black vomit is sometimes accompanied by stools of the same color. These do not exhibit any special character. Often the substance of black vomit is exclusively furnished by the stools. It is there presented with the characteristics already described, and it is worthy of note, that this circumstance is almost always a reassuring sign.

Black vomit should not be considered as a condition *sine qua non* of yellow fever. Yellow fever may exist without black vomit, and *vice versa* : that is black vomit is not always a certain sign of yellow fever. For example, I have seen a child five years of age, born in the country, a son of creoles, have black vomit composed of clots which were deposited at the bottom of the vessel. He died after four days of illness. This little patient had all the symptoms of a pernicious fever, and epidemic vomito did not exist in the city. A year later, I saw another child have black stools and vomit. This was another case of pernicious fever, but this child recovered.

A negro from the coast of Africa, and resident at Havana for twenty-two years, attacked by pernicious fever, vomited black blood the third, and died on the fifth day.

I have four other cases to add to these. Of the seven patients, five died. Besides, it is well ascertained, and the medical men of our country all know that black vomit is a symptom of certain pernicious fevers.

However, black vomit belongs more especially to yellow fever, and is one of the gravest signs of this frightful disease.

*Hiccough.*—The hiccough is not of great importance during the first period. It may then be easily mastered. But when it is manifested at the close of the second period, or during the third, it almost always indicates certain death. Sometimes dry, sometimes accompanied by vomiting, but always very distressing, it throws the patient into inexpressible anguish.

*Jaundice.*—Pain in the right side proves that the liver suffers, above all when this pain is violent and extends to the back; but jaundice, we hasten to say, is not an indispensable symptom of yellow fever. I say more—it really exists from the first period, and very often the sick die or are cured without the skin having the least icteric tint even after death. Still it must be admitted, that it is presented with great frequency.

The yellow color of the eyes and of the face, which gives to the physiognomy of the patient so peculiar a character, is a veritable jaundice. My father has observed, and I have often had occasion to decide, that jaundice appearing before the third day is a symptom very often fatal. After the fifth or sixth day, it is, on the contrary, a favorable symptom. Jaundice does not always present itself gradually. Often a patient left with natural skin is found six hours after with a pronounced icteric color. Finally, jaundice exists sometimes without, sometimes preceding, often following black vomit.

The shade varies much, running the scale from clear to citron, deep, and even blackish yellow. In grave cases, yellowness is the symptom which lasts the longest after the cure. It may continue for two months after the restoration of the patient.

The icteric tint must not be confounded with another coloration of the skin, which takes place in the third period of yellow fever and is common in hemorrhagic diseases with decomposition of the blood. This yields to a citrine coloration of the skin, particularly observed in anæmic dead subjects. It is due to the disintegration, almost total, of the globules of the blood, while the yellow tint is caused by the passage of bile into the blood. This can be extravasated in such great abundance, that the sweat colors the bed clothing yellow, and the urine shows so deep a red, that the physician is tempted to believe in the existence of hematuria.

Jaundice is often coincident with constipation, often also it is accompanied by bilious diarrhoea.

*Intestines.*—The intestines are sometimes the seat of general pain; frequently this is localized in the right iliac region, with borborygms and gurglings: but this symptom is far from possessing the importance here, that it has in veritable typhoid fever.

When the disease starts with symptoms of cerebral congestion, constipation is very obstinate, and if it persists during the second period, it adds to the gravity of the prognosis.

When the disease in its commencement first strikes the digestive apparatus, diarrhoea presents itself at the same time with vomiting. This should be considered favorable, provided it is increased not to the extent of weakening the patient; free bilious stools are good, but when blackish gray flakes appear from follicles of the intestines, it is necessary to watch them, because they will not be slow to become black. These in certain cases precede the black vomit of the second and even the third day, and sometimes they cease before its appearance. They oftener occur after the vomitings, which sometimes diminish in quantity, sometimes do not undergo any change. Their diminution is a favorable sign. The diarrhoea may also be modified and become bilious after having been black. This change is a happy presage.

The discharges are sometimes stained with blood, as for instance in certain anal hemorrhages, which we will study later. These hemorrhages are grave, especially toward the end of the disease, because of the exhaustion which ensues.

When the pain in the right iliac fossa appears in the second period, accompanied by borborygms and gurglings, with painful sensation on pressure of the hand, it is an indication of local inflammation of the intestinal mucous membrane; and when the pain is coincident with stools, loaded with mucus and follicles of the mucous membrane, engorgement and ulceration of Peyer's glands must be feared, as in typhoid fever.

*Urine.*—In the first period of yellow fever the urine presents no alteration. It is clear or a little red, according to the general febrile condition or to the dryness or moisture of the skin. But in the second period the urine is also altered in its composition, and presents interesting signs to study. It becomes yellow, gradually

deepens, is charged with bile to the point of coloring the vessel, and sometimes thickens and forms hypostatic sediment, upon which swims a liquid less dark.

When the blood is altered, but before its decomposition is appreciable, nitric acid reveals the presence of albumen in the urine. This is the certain indication of severe, grave yellow fever. In the last period of the disease, a drop of nitric acid suffices to precipitate a considerable quantity. The proportion of albumen increases or diminishes with the gravity of the disease, but in convalescence, some continues to be found for a time.

While I write these lines, I have charge of two patients severely affected for three months. Both had black vomit. One still has the parotids suppurating—the other has white swellings of the wrist, and both still show traces of albumen.

Hæmaturia coinciding with the cessation of other preëxisting grave symptoms, is a good sign, which may be considered critical in the last period of the disease. The urine is sometimes suppressed for more than twenty-four hours. It is a grave symptom, almost always indicating a morbid condition of the brain. The urine may be retained, although the bladder may be so full as to occasion insupportable pain to the patient. It is then necessary to introduce the catheter, by which is drawn a thick, dark, blackish, sticky liquid of an insufferable odor. This retention is caused by general weakness and by paralysis of the bladder. It ceases after some applications of the catheter, and exhibits much less gravity than suppression with vacuity of the bladder.

*The Skin.*—The exterior appearance of the skin peculiarly assists the diagnosis. In the first period, the skin is sometimes dry, sometimes covered with sweat. Its moisture is a favorable symptom. It is rarely, that the disease then assumes a very grave progress. The cutaneous heat sometimes presents a burning temperature and a dryness, which leave on the hand of the examiner an indescribably disagreeable sensation. When this excessive heat persists to the second period, the case is very serious, at least until a copious sweat is exhibited.

The color of the skin does not change in the outset of the disease: the face is more or less red in proportion to the degree and intensity of the fever. If in the second period, jaundice is de-

clared, the color varies from clear to citron yellow, deep and even blackish yellow. But I have observed already, and I insist anew upon this point, that the icteric tint need not be confounded with that of the skin of anemias and chlorotics. So the hemorrhages which so often occur in the course of yellow fever give a citrine color to the skin, which is not that of jaundice. It is a pale yellow slate, sprinkled sometimes with livid specks (petechiæ) or presenting here and there large spots, deep brown, violet, or black, (ecchymoses).

In certain cases the skin is covered with true gangrenous blisters. These are oftenest observed on the scrotum, the skin of which literally falls into shreds. At other times there are excoriations, which cause more suffering, if they are not observed and cared for in the beginning. In the third period, a veritable crisis, ordinarily favorable, may declare itself in numerous abscesses.

*Pulse.*—In the first period the pulse is always in connection with the mode and violence of the attack. In general it is hard, vibrating, frequent. At 110 or 120 in the beginning, it remains so in the continued type, or it survives a remission or even an intermission, and then falls to 90 and 80 beats.

In the second period, the pulse offers phenomena worthy of remark. Stronger than in the normal state, it loses its frequency: instead of 110 to 120, it descends to 90, and this reduction seems to indicate amelioration—a false sign—which for some hours precedes the third period, so terrible and so often fatal.\* In this, the pulse follows the alteration of the blood. During the hemorrhages it is small, feeble, and often thread-like. Its beating even is often arrested twenty-four hours before death—its irregularity is a very bad symptom and announces deep-seated alterations.

*Moral.*—The moral state of the case has much influence upon its result. Sometimes the sick have no apprehension, again they cannot overcome a sentiment of fear, which is ordinarily fatal. This phenomenon is principally observed among those from the north of Spain and south of France. One remarkable effect of the fright of which I speak is epileptiform convulsion. In 1850, the captain of La Ceres, a French vessel from Dieppe, succumbed to this kind of attack. On his arrival in port, one of his friends was buried, a captain like himself, who had died of yellow fever. Scarcely landed

On the shore, he told me that he would assist in the interment. I tried in vain to dissuade them, but he persisted, and was so affected, that he passed the night without sleep. The next morning he was seized with epileptiform attacks, and died in convulsions twenty-four hours after.

The terror which the disease inspires is not betrayed in all cases in the same manner. Some are overwhelmed, others work themselves up to disguise their fright. Delirium will be more frequent in these than in other cases. Sometimes the delirium is calm, the patient gently murmuring disconnected words; at other times is restrained with the greatest difficulty. It may be a delirium so furious as to require the straight-jacket. These cases ordinarily terminate in convulsions. Sometimes the muscular agitation is so great as to break the bed. With some subjects only the muscles of the face become convulsed; with others, the body is stiffened and curved as in catalepsy. Ordinarily the patient revives, uttering appalling cries.

Autopsies have demonstrated to me, that the convulsive movements are coincident with irritation of the spinal marrow. The sick who recover, undergo a very painful convalescence, which always leaves some traces. They often lose their memory.

*Hemorrhages.*—One of the remarkable characteristics of yellow fever is the importance of the symptoms of which the mucous membrane is the seat. In the second, above all in the third period, when a blackish liquid oozes from the capillaries, such hemorrhages compromise the life of the patient in the proportion that they may affect the mucous membranes in general. When partial, even if the general condition is ameliorated, they ought to be considered critical; but when coincident with increasing weakness, they are of extreme gravity.

*Epistaxis.*—The most frequent of these hemorrhages is epistaxis. When it occurs in the first period, with a subject robust and of sanguine temperament, it is a good sign, and should not be restrained, because it will arrest itself. It happens most frequently in the continued type, when the air is dry and the temperature elevated. In the second and third period it can become fatal; on the fifth or sixth day it ought to be regarded as very grave. Patients who have epistaxis sometimes swallow the blood while asleep.

and wake with hematemesis, which, without being serious, may alarm the inexperienced physician.

*Gingival Hemorrhage.*—Hemorrhage of the gums is not an alarming symptom. It cannot be considered critical, when not accompanied by hemorrhage of the whole mucous membrane of the mouth and tongue. In this case, clots of blood are found, which adhere to the internal face of the cheeks, putrefy and exhale an infectious odor. Very great cleanliness is necessary to avoid this state, which inspires more of disgust than it threatens of danger.

*Hemorrhages of the Stomach.*—The accumulation of blood in the stomach may be produced by different causes. When, as already mentioned, blood oozing from the nasal and buccal mucous membranes is swallowed by the patient, or where blood exudes from the capillaries of the gastric mucous membrane, so long as the blood is not altered the danger is not imminent.

*Anal Hemorrhage.*—The anus is the seat of hemorrhages, which ought to be considered critical, when they occur in the second period, especially if the subject is young and robust ; but they are very serious in the third period.

*Hematuria.*—Another species of hemorrhage, which far from discouraging, ought to give hope, is that of the bladder. It is similar to vaginal and uterine hemorrhage.

The lungs can equally become the seat of hemorrhage. The skin shows it in different ways. Sometimes the blood oozes from accidental lesions like leech pricks, cuts, cuppings and the like. It may raise the epidermis under forms of petechiæ or ecchymoses.

Each one of these hemorrhages may be separately presented. Far then from being a grave characteristic, they are motives for hope, especially when they occur near the outset ; when the subject is robust, when with their appearance the fever ceases, and when the nervous apparatus is not over-excited. But when they appear in the third period, and many of them simultaneously, they ought to be feared as much more, as the patient is weaker. The tendency to hemorrhage in yellow fever depends upon the temperament of the individual and the condition of the atmosphere. Humidity contributes to it greatly. In certain years, yellow fever has been almost



free of this symptom, which may, on the contrary, be the capital feature of another epidemic.

In general, hemorrhagic cases last longer, and their convalescence is painful.

The appearance of the catamenia in females is a great security in the outset of the disease. Generally then the symptoms diminish in intensity. In the second period, they are less favorable: in the third, they produce a complication graver in proportion, as the disease is more advanced and the patient more feeble.

The second, and especially the third period, is to be feared for the pregnant female. If abortion occurs, it has the most fatal consequences, because in this hemorrhagic state, it is easy to understand, that it is very difficult, if not impossible, to arrest the bleeding, which already too fluid, flows with uncontrollable persistence.

The hemorrhagic period is often complicated with induration of the glands sometimes followed by suppuration. Inflammation of the parotids is a favorable symptom, when it happens in a very dangerous phase of the disease. This inflammation is simple or double, and terminates more frequently by suppuration than by resolution. It is very painful and very slow to cure. It often forms fistulas, which delay the cure. The complication of which I speak, does not present itself equally in all epidemics, but I have not seen it so frequent as in the present epidemic. In more than eight hundred sick, I have had forty cases of simple and double parotids, and but a single case terminated in death.

[To be continued.]

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*Breech Presentations.*—Dr. T. Gaillard Thomas (*Med. and Surg. Reporter*), says in a clinical lecture: Never hurry the early stages. Carefully refrain from bringing down a leg with the finger or blunt hook, but wait until the breech presses on the perineum: then turn the woman across the bed, and give a hypodermic injection of ergot. Remember the delivering force must come from above: have an assistant ready to press with all his force as soon as the cord can be reached, urging the woman to bear down with all her might. The result is usually a very speedy delivery, as soon as the finger can be got into the mouth.

## CORRESPONDENCE.

### OUR NEW YORK LETTER.

46 WEST THIRTY-SIXTH STREET,

NEW YORK, January 17th, 1879.

The presence of Mr. George W. Callender, of St. Bartholomew's Hospital, London, has been the occasion of a number of social gatherings of medical men; the reception which took place at the residence of Dr. H. B. Sands was very brilliant. Mr. Callender will be remembered for his contributions to the inquiry into the effects of injuries upon the bones of the cranium, and for much other valuable surgical work. He has favored us with one or two lectures upon some practical points, as the evacuation of abscesses, and the painless manipulation and after-treatment of surgical cases. His mode of curing abscesses is by over distending them after their purulent contents have been discharged. A crucial incision is made at the point of election and the pus is allowed to escape, and afterwards a syringe with a flexible and distensible nozzle is introduced, and a solution of carbolic acid (1:20) is pumped in. The elastic nozzle fills the opening completely and prevents the solution escaping. Enough is introduced to effect a powerful pressure upon the walls of the cavity, when it is allowed to escape, and the process is repeated until the solution runs away clear. There is no exhaustion following this method, and the abscess heals up very speedily. Sinuses may be treated in the same way—the principle being hyper-distension and asepsis.

Nothing in therapeutics is more striking than the tendency evinced during the past year to return to, or, at least, to reëxamine some of the discarded medicinal agents. For instance, Dr. Leaming, one of four leading practitioners, and an expert and high authority in diseases of the respiratory organs, was himself treated for a pleuro-pneumonia by large doses (30 grains, I believe) of calomel. These were given at the outset, and are said to have had a powerful effect in mitigating the severity of the disease, if not in aborting it. Dr. C. R. Agnew has resorted to it in 15 grain doses to arrest threatened iritis after extraction of cataract. A somewhat free

purgation was induced, and the iritis did not progress but subsided promptly, without any adjuvant measures except the routine instillation of atropia, which, however, had been kept up from the first.

Dr. Reuling, of Baltimore, in a late paper recommends it in large doses as a valuable remedy in threatened irido-cyclitis. And Dr. Otis reported to the Medical and Surgical Society a similar favorable use of it in the early stages of pneumonia, in which the crepitant râles, and dulness on percussion left no reason for doubt as to the diagnosis.

Its use at this cautious period of medical science, it is needless to say, is wholly empirical, since no one now ventures, as in the past, upon an explanation of its apparent usefulness. The theorists will be heard from after a while. In speaking of its empirical use I do not wish to condemn that mode, I think most of our favorable medication is empirical: at least it ought to be, and I think that when *a priori*, or inductive methods come to be held subordinate to the knowledge derived from intelligent experimentation, we may expect a material advance in the efficacy of our therapeutics.

The paramount question in reference to every drug or agent should not be as to what value, physiological data or pathological lesions predict for it, but as to what results are derived from it, under given conditions, and what symptoms are mitigated or relieved by it; and the amount given should always be stated. Fortunately our forefathers have left for us a vast amount of useful knowledge of drugs, and we may refine that knowledge by close observation and discrimination. Perhaps we have much to learn from a schismatic school in the study of symptoms in relation to drugs. We practically disregard diseases as entities, and look upon them as simply a collocation of symptoms some of which are more or less portentous of death. A symptom is really nothing more than a perverted, or an arrested physiological activity, or a vicarious expression of one, and it seems reasonable to direct our medical skill chiefly against such as stand in the place of essential processes.

It is obvious that such considerations do direct us in our application of remedies, for after we get beyond those drugs of which the action is unmistakably chemical, we select others for their dynamic virtues: and this means because they have the power to affect

nutrition in diminishing or increasing the play of physical mechanisms. It is not essential to know how they do it, but only that they do it. No apology is needed for these views when we consider the modern use of cold in pyrexias; and of belladonna, quinia, alcohol, &c., in failing heart action, and of strychnia, bromides, &c., in the disturbances of the rhythmic explosions of nerve force.

In evidence of the neglect of therapeutics at the hands of our prominent men, it was mentioned at the last meeting of the Academy of Medicine that among many hundred papers read within the past four years, and covering 8,000 or more printed pages, not one had been specially directed to a therapeutic inquiry. The reason, perhaps, is in the fact that such a topic is not as potent an aid to self and fame as the propounding of a new theory or the invention of a new surgical process.

The stated meeting of the Academy of Medicine, on January 16th, was one of great interest. It was the occasion of the retirement of President Purple, and the induction into office of the new President, Dr. Barker. This Society has certainly been very happy in the selection of its chief officers. Dr. Purple has been president for the past four years, during which time his zeal, personal dignity, influence and valuable contributions have served to advance greatly the high character and usefulness of the Academy. From his valedictory, we learn that upon his election to office the library numbered barely 500 volumes, while now, over 9,000 are on the shelves, available to the entire profession and the public from 9 to 5 o'clock daily. It is probably richer in American medical periodicals than any other collection in the country, not even excepting that of the Surgeon-General at Washington, it contains complete sets of every journal that has ever been published in the United States. The current medical literature is represented by more than sixty periodicals, domestic and foreign. It is proposed to make this library worthy of the American profession. Duplicates are to be allowed to circulate, and with a view to aid this desirable feature in the management, copies of rare (old or new) journals and books are solicited and will be thankfully received and acknowledged.

The Academy proposes to add immediately a more capacious auditorium and better library rooms to its already large and mag-

nificent building. For this purpose a prominent practitioner has subscribed \$5000, and at the last meeting the secretaries were busy receiving the names of those who desired to subscribe towards the additional amount necessary to carry this into effect.

I should not forget to mention the chaste, elegant and witty address of Dr. Barker. I cannot help wishing it could have been heard by some of our practitioners who have given up attendance upon the societies because they "know it all and have nothing else to learn, or because they cannot brook the aggressive advance of the younger element."

Dr. B. is himself not a junior practitioner, and it was a pleasing spectacle to see the dignity with which he was supported by Drs. Anderson, Post, Wood and other Nestors of the profession. He preserves all of his activity, and his love for medicine; and I look upon the fulness of his wisdom with the same admiration that was won from me during my term of service under him, in Bellevue Hospital, 19 years ago.

The laboratory connected with the College of Physicians and Surgeons is now fully supplied with every thing requisite in physiological research, and adds greatly to the means of instruction of that ancient but vigorous institution. It is well endowed by private liberality, and to mention that it is in charge of Professor Delafield at once indicates the usefulness to which it will attain.

Dr. Emmet's forthcoming work on gynecology, I may state in reply to many inquiries, is nearly ready, and will be issued about the middle of February. The fame of the author has already created a desire for it which will speedily necessitate a second edition.

His contribution of knowledge of lacerations of the cervix, and the part he has played in perfecting the operation for vesico-vaginal fistula entitle him to high rank as one of the benefactors of the human race.

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The Homœopathic *Times* announces the discovery of *charcoal* as a prophylactic in yellow fever!—*Lancet and Clinic*.

## EDITORIAL.

### NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED  
IN WILMINGTON, N. C.

M. J. DEROSSET, M. D., 46 West 36th St., N. Y. } Editors.  
THOMAS F. WOOD, M. D., Wilmington, N. C. }

 *Original communications are solicited from all parts of the country, and especially from the medical profession of The Carolinas. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to our JOURNAL, by sending the address to this office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to DEROSSET & WOOD, P. O. Box 535, Wilmington, N. C.*

### THE JOURNAL AND THE NEW YEAR.

Just one year ago we revived the NORTH CAROLINA MEDICAL JOURNAL, with the belief that the profession of the State would welcome its return to their offices with pleasure. In this we have not been disappointed. Although the first JOURNAL of this name once occupied the same field, we found it essentially new and unexplored, and our JOURNAL now goes to three times as many subscribers as the old one carried on its lists.

Our readers must be the judges whether or not we have fulfilled the promises we made in our Prospectus issued September 15th, 1877. We have had assurances from numerous friends of our steady progression, and we have had what we value just as highly, adverse criticism. It is not our purpose to parade the former, although it would probably make new friends for us, as we prefer slow and genuine development. We will profit by the friendly criticisms of our subscribers as far as we are able. To all who have interested themselves in our work we acknowledge our indebtedness.

Many of our friends have received the JOURNAL for a year, but have not responded to bills sent with the promptness we desire and require. We assure them that it is by their assistance with money that the JOURNAL can be made more and more acceptable to them.

We have to regret the delays in our issues. It is not due to a want of material, and will soon be obviated, enabling us to be ready for the mail on the 15th of each month after this issue.

We ask our friends therefore to secure for us new subscribers, to send in their contributions promptly, not to get out of patience if we sometimes dun the wrong man, and the 3d and 4th volumes of the NORTH CAROLINA MEDICAL JOURNAL will be an improvement on the 1st and 2d volumes.

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## THE SUPPLEMENTAL BOARD OF HEALTH BILL.

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For two years the State Board of Health has had a nominal existence, and during this time it has been demonstrated that its permanent establishment could be completed, and good results obtained. As soon as the leading medical men in the several counties were notified of the formation of the Board, and the prospects of success, many of them while entirely endorsing the aims, would not lend their aid, because the certainty of insufficient means to accomplish the ends, forboded failure. A few of them yielded to the personal solicitations of the Secretary and made reports until a want of coöperation proved that it was useless to go further.

The Committee from the State Medical Society, met in Raleigh on the 20th inst., and after weighing the temper of the Legislature in session, drew up a bill supplemental to the original act. This bill contemplates 1st : That the Board shall be composed of nine members, six of whom shall be elected by the State Medical Society and three appointed by the Governor, one of whom shall be a civil engineer. The appointees of the Governor to serve two years, and of the State Society, two for two, two for four, and two for six years respectively.

2d. That there shall be auxiliary boards in each county, composed of physicians eligible to membership in the State Medical Society,

the mayor of county or town, chairman of commissioners, and city or county surveyor. The Superintendent is to be registrar, keeping the record according to the plan to be devised by the State Board of Health, and receiving for his compensation a salary equal to the amount paid in 1878 for medical service to the jail, work-house, poor house, and medico-legal post-mortem examinations. The service of these public institutions also devolves upon the Superintendent of Health.

3d. The State is to do the necessary printing and furnish the stationery, and appropriate \$300 for expenses.

The scope of the work included in the program is intended to place the board on a somewhat more advanced plane than the one occupied now, but the committee would never have agreed upon this contracted plan from choice. After gaining some insight into the temper and disposition of the legislature, they were of opinion that to ask more would consign the whole matter to defeat.

Even with this moderate request we are by no means sure of success.

The report of the Board was presented to the Governor on the 22d inst., and the matter laid in his hands. We are assured of his personal approval of our work, and we are sanguine that he will place the memorial before both houses, in a way that will secure for us the limited help asked for.

The members of the medical profession in both houses were attentive to the plan proposed, and we know that if they alone could effect its passage, the bill would certainly be much less narrow.

The medical profession of the State desire this work to progress, that we may be put on an equality with other States, and be enabled to aid in the great work of National Sanitation, not for the good it will do the doctors, as will be obvious to an unprejudiced thinker, but for the good it will do the whole State.

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One M. Holden is palming himself off at Polkton and other places as a doctor, upon recommendations from Wilmington physicians. The signatures of these gentlemen were given to help Holden get a situation as a clerk, and his subsequent use of them is fraudulent.



## REVIEWS AND BOOK NOTICES.

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### ANNUAL REPORT OF THE SURGEON-GENERAL OF THE UNITED STATES ARMY. 1878.

Surgeon-General Barnes gives a report in 24 pages, of the transactions of his department for a year. The first part contains the "Financial Statement" of the Bureau.

The second part gives the "Health of the Army for fiscal year ending the 30th of June, 1878."

The third part "Occurrence of Yellow Fever During the Summer of 1878." The plan adopted was to move the garrison on the approach of the disease. Only two deaths from this disease.

The fourth contains "Work Performed in the Record and Pension Division." Since the accession of more clerical force in this department, there has been a large gain upon the arrears of work which had been long accumulating.

Under the "Division of Surgical Records" the report is more readable. It consists chiefly of extracts of reports from medical officers serving on the frontier from which we quote :

"In a detailed account of the expedition, which terminated in the surrender of Joseph and his band, on October 5, 1877, Surgeon Tilton gives at length the manner of transporting wounded men on two-mule litters and travois among our troops, and the mode employed by the Indians in securing their wounded on horseback. The report is replete with practical remarks of a careful observer. "In anticipation," he remarks, "of the homeward march, a detail had been sent out for poles, suitable for two-mule litters and travois. Instructions were given to make six litters and four travois, but the poles were so short (about sixteen feet long) that they had to be used as travois. Unless the rear mule can see where to step, he walks off sideways like a crab. \* \* On our first day's march, October 7th, we were met by two ambulances from Colonel Sturgis' command; but no patient cared to be disturbed and the ambulances were not used until next day, when two fractured thighs were put into one ambulance and Lieutenant Henry Romeyn, 5th Infantry, who was shot through the right lung, occupied the other. Five men were carried on travois the balance of the march to the Missouri River, a distance of (110) miles from the battle field. Two

more travois were turned over to the Indians. One Indian, who was shot through the back, was carried on a horse by supporting his body on two crossed sticks, each about four feet long; the lower ends were secured to the rings of a Mexican hair cinch. They were crossed at the pommel of the saddle, and projected about eighteen inches above the horse's back. Pillows were placed against the sticks: the wounded Indian was carefully assisted into the saddle, a robe passed around him, and a lariat outside of the robe. He appeared to get along comfortably. I made inquiry and examined the arrangement of the sticks. Before reaching the cantonment, I found that he had improved sufficiently to dispense with the apparatus. I noticed one travois which the Indians had fixed: the poles were short and the position of the patient was much cramped, but he appeared to be content with the arrangement."

"Although thirteen years have elapsed since the war \* \* \* \* \* additional surgical cases are yet sometimes received from various sources," so that now "the number of tabulated cases aggregate 268,927."

*The Library.*—About 2000 volumes and 3000 pamphlets have been added to the library of the Surgeon-General, now so well known as the National Medical Library, making a total of 46,000 volumes, and 50,000 pamphlets. The index catalogue, including original papers in medical journals and transactions, has been completed to date, and the work of classification by subjects, including the preparation of a net-work of cross-references, is so near completion that the work can be sent to the press at any time."

The Surgeon-General renews the recommendation to have this great work printed and put "beyond the reach of casualty." In this recommendation he is amply seconded by the medical journals in the country, the American Medical Association, the American Public Health Association and many State Societies.

The printing of this work would place this immense collection within the reach of thousands of physicians, and would reflect great credit upon American medical literature. It would surpass in extent and usefulness any work of similar character in existence either in this country or elsewhere. This present Congress ought to appropriate the needed money at once.

## \*MEDICAL AND SURGICAL HISTORY OF THE WAR.

The work on the second medical volume of the above has steadily progressed, and in all 691 pages are now stereotyped.

We see that there are a great many unsuccessful candidates before the Army Boards, for position of Assistant-Surgeon. Of a total of 51 examined *only seven passed*. Is this the place for commentary upon lax medical training in the Colleges, or for a criticism upon the uselessly rigid examinations? The army seems always to maintain a choice corps of medical men at any rate.

The conduct of the Surgeon-General's Bureau seems always to be above reproach, and the Surgeon-General and the able medical family he has called around him deserve the lasting gratitude of the profession at large for the high position they have been so instrumental in giving to American medical literature.

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DIFFERENTIAL DIAGNOSIS: A Manual of the Comparative Semiology of the More Important Diseases. By F. DE HAVILLAND HALL, M. D. Assistant Physician to the Westminster Hospital. London. American Edition with extensive additions. Philadelphia: D. G. Brinton. 115 South 7th Street. 1879.

It is a most difficult matter in expressing one's opinions of books in these times of rapid book-making, to give fairly such information as our readers would like to have before adding a new volume to their library.

This attractive work is the first American edition, and without other means of comparison, we would judge from the references that very copious additions have been made. This feature is very commendable, as it brings very many valuable diagnostic formulas together, which otherwise would take an extensive reading of American Journals to compass.

The tabular method of comparing symptoms so largely employed by the best teachers is well utilized, making the differential diagnosis of many difficult diseases sufficiently clear for the student, and a convenient remembrancer for the practitioner.

One extract will suffice to show how well this part of the work is done:

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\*We are glad to see on page 18 that that ugly word "Rebellion" is left out of the caption in the section begun on this page.

MEMBRANOUS CROUP.	DIPHTHERIA.
Is a local complaint, rarely or never occurs after puberty.	Is a general disease; common to all ages.
Is not contagious. Type sthenic.	Is decidedly contagious. Type asthenic.
Commences with a cough, catarrh and hoarseness; little or no sore throat and difficulty of swallowing. Cough shrill, metallic; breathing stridulous from the outset.	Commences with a chill, sore throat, difficulty of swallowing; but neither hoarseness nor cough at the outset. Stridulous breathing a late symptom.
The membranous affection begins in the larynx and extends to the throat.	The membranous affection begins in the throat and extends to the larynx. (Da Costa).
Fauces injected but rarely swollen, and generally without exudation.	Fauces injected, swollen and presenting exudations.
Exudations never cutaneous.	Exudations often cutaneous.
No swelling of the submaxillary glands.	Submaxillary glands swollen.
Epistaxis and albuminuria absent.	Epistaxis and albuminuria frequent.
Little and often no prostration of the general strength.	Considerable, often extreme prostration.
Improves under emetics, local counter irritants, expectorants and depressants.	Demands a stimulating and sustaining treatment.
Is never followed by paralysis.	Subsequent paralysis not infrequent.
Rarely fatal. Death from apnoea. Blood not changed. Spleen not affected.	Frequently fatal. Death usually by asthenia. Blood after death usually fluid and dirty brown. Spleen enlarged and softened. (J. W. Howard).

Here is the author's definition of scrofulous inflammation, a condition which he believes not to be so well understood by American physicians on account of its comparative infrequency:

When an individual acquires an inflammation of a mucous membrane, of the skin, of the joints, of the bones, of the genito-urinary apparatus, or of almost any part of the body, such an inflammation usually runs an acute course and terminates in resolution, or in suppuration, or in the formation of organized new tissue. But, if the inflammation, instead of doing this, simply reaches a certain point and stays there, and then instead of resolving or suppurating merely, goes through a succession of degenerative changes, such an inflammation is said to be scrofulous. Page 62.

The mechanical execution of this book is excellent, no little merit for those of our seniors to consider, who find a clear large type not only a luxury but a necessity.

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CONSPECTUS OF ORGANIC MATERIA MEDICA AND PHARMACAL BOTANY, comprising the Vegetable and Animal Drugs: Their Physical character, Geographical origin, Classification, Constituents, Doses, Adulterations, &c. Tables of the Tests and Solubilities of the Alkaloids appended. By L. E. SAYRE, Ph. G. Philadelphia: D. G. Brinton, 115 South Seventh Street. 1879 Svo. Pp. 220.

The study of the character of the drugs proper is more neglected by medical students than any other branch of medicine. Since the days when the doctors kept their own drugs, and were compelled to make their own tinctures and syrups, &c., office students have learned to regard such studies as entirely a matter with which only the druggist has to do.

With the volume before us, the study of drugs is facilitated by methodical arrangement and concise descriptions. A "Chart of Botanic Materia Medica" begins the book, giving in tabular form the Natural Order, Official Name, Botanical Name, Habitat, Part used, Constituents, Medical Properties, Dose, Official Preparations. Thus LOGANIACEÆ, (Nat. Ord.), Gelsemium, (off. name), *G. sempervirens*, (Botanical name), Yellow Jesamine (Common name), Southern U. S. (Habitat), Root (part used), Gelsemia and an acid (Gelsemic acid) (constituents), Diaphoretic and anti-spasmodic (med. properties), Gelsemia, grs.  $\frac{1}{4}$  to 1 (Dose).

A few pages are devoted to the Geographical Grouping of Materia Medica, which could have been improved, and made more comprehensive by the use of the charts in *New Remedies*.

A concise account covering thirty pages is given of Structural Botany, and Botanical Classification, being most useful to the Student who has only a limited knowledge of Botany.

The next division of the work treats of the characteristics of drugs beginning with, roots, rhizomes, tubers, bulbs, stems, woods, barks, leaves, and leaflets, flowers and parts of flowers, fruits, seeds, gums, sugars, fats, oils, &c., &c., the description under these heads being short and comprehensive, of which the following is an example :

PODOPHYLLUM.      *P. peltatum.*      May Apple.

“ Whole rhizome is horizontal, one to several feet in length, and about a quarter of an inch thick, jointed and furnished with radicles. In commerce, consists of pieces two to three inches long, and sometimes furnished with fibres. The leaf scars are plainly visible, and are far apart, except in a thickened portion, where they are close together ; broad, flattened joints at short intervals. Externally, orange brown, short fracture ; internally, whitish, showing an extremely small, corky layer, and a thin, simple circle of about twenty to forty yellow vascular bundles, enclosing a central pith, which, in the larger pieces, is about two lines in diameter.

“ Podophyllum contains no alkaloid. The yellow coloring principle heretofore supposed to be due to Berberina is due to the resins, one of which is soluble in ether, and the other insoluble in the same liquid. Podophyllinic acid, which has a chemical behavior analogous to Quercitron, is said to be also a constituent.”

Two tables, one of “Vegetable Antidotes and Incompatibles,” and the other of the “Solubilities of the Alkaloids” close the volume.

We commend the volume to students of medicine and pharmacy in the author's language. Students “lose a good deal of valuable time in finding out what to learn,” and with this little volume before them they must be dull indeed if they are not enticed and stimulated to seek after more thorough knowledge.

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PROCEEDINGS OF THE BOARDS OF EXPERTS authorized by Congress to Investigate the Yellow Fever Epidemic of 1878. Meeting held in Memphis, Tenn., December 26th, 27th, 28th, 1878.

This pamphlet gives the minutes of organization of the Board of Experts appointed by the Joint Committee of the Senate and

House of Representatives on Epidemic Diseases. The Committee is composed of :

Dr. J. M. Woodworth, Surgeon-General, M. H. S.

“ S. M. Bemiss, Editor of the New Orleans Medical and Surgical Journal.

Dr. Jerome Cochrané, Mobile, Ala.

“ William Selden, Norfolk, Va.

“ Samuel A. Green, Boston, Mass.

“ Wm. H. Randle, Philadelphia, Pa.

“ Jacob S. Mosher, Albany, N. Y.

“ M. S. Craft, Jackson, Miss.

“ R. U. Mitchell, Memphis, Tenn.

“ L. A. Falligant, Savannah, Ga.

“ Stanford E. Chaillé, New Orleans, La.

Col. Thos. S. Hardee, Engineer, New Orleans, La.

Dr. R. M. Swearingen, Austin, Texas.

After the usual preliminary working organization the following resolution was adopted :

“ *Resolved*, That in order to carry out the instructions which have been prescribed by the “ Joint Committees of the Senate and House of Representatives,” for the government of the Board of Experts, in the investigation of the origin, cause, and distinctive features of yellow fever we commend that the plan of investigation heretofore pursued by the Yellow Fever Commission, which has been acting during the last three months, under the orders of the Surgeon-General of the Marine Hospital Service, as reported in the memorandum submitted by said Surgeon-General, together with the additional inquiries suggested in said memorandum, be adopted as a basis for the further investigation to be conducted by the Board of Experts.”

Two sets of interrogatories were framed, one to be propounded to the medical men examined, and then to the non-medical witnesses. Both sets of questions are intended to elicit the personal opinions and observations of persons interrogated.

Another Memorandum of points to be investigated by the Board of Experts, traverses the whole ground of inquiry seemingly, so much so that we do not think there is any possibility of the work coming to a successful issue soon.

The work has been divided up between sub-committees, and every effort is being made to work to the best advantage. We hope the

Board will not listen at all to the clamors of the press to tell them something of their doings before they arrive at satisfactory conclusions. At this distance from the meeting of the Public Health Association we are satisfied that it was a great mistake to have made any report at all at Richmond, and with this experience fresh in the memory of the present investigators we hope they will not report at all until they are fully ready.

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CLINICAL DIAGNOSIS: A Hand-book for Students and Practitioners. Edited by JAMES FINLAYSON, M. D., of Glasgow. Reprint. H. C. Lea. Philadelphia. Svo. Pp. 546.

This is one of the really useful books. It is attractive from preface to title page, and ought to be given a place on every office table, because it contains in a condensed form all that is valuable in semeiology and diagnostics to be found in bulkier volumes, and because in its arrangement and complete index it is unusually convenient for quick reference in any emergency that may come upon the busy practitioner. We do not approve of such books being put into the hands of under graduates—they should be taught that enduring knowledge is to be gained not by short cuts but only through tedious ways; but to the practitioners who starts out in life without the advantage of a post graduate residence in hospital, this work will stand in the stead of a clinical teacher, and will guide him wisely to the best means of making thorough analyses of cases with which he may have to deal. The hospital men will also find in it a valuable friend to instruct them in rare diseases and symptoms, and as a source to which they may look for a ready refreshing of the knowledge they already possess.

The book opens with an instructive chapter of the physiognomy of diseases by Dr. Gairdner; then comes very complete and satisfactory chapters on the various methods and appliances employed in the examination of patients; then on the significance of symptoms which forms the bulk of the book. The chapters on clinical thermometry, the physical examination of the chest and the method of making post mortem examinations we may single out as being particularly good and practical.



THE PRINCIPLES AND PRACTICE OF SURGERY. BY JOHN ASH-HURST, JR., M. D. Philadelphia. Second edition. Enlarged and thoroughly revised. H. C. Lea. 8vo. Pages 1040.

The attempt to embrace in a volume of 1000 pages, the whole field of surgery, general and special, would be a hopeless task unless through the most tireless industry in collating and arranging and the wisest judgment in condensing and excluding. These faculties have been abundantly employed by the author, and he has given us a most excellent treatise, brought up by the revision for the second edition to the latest date. There are a few novelties which have been omitted, and it would have been well to omit some which have been included. The description of the various surgical diseases and procedures are very clear and given with quite as much detail as the vast scope of work would warrant. Wherever a more circumstantial narration is needed, the reader can ascertain from the foot notes and references the original sources whence the information is drawn.

Of course this book is not designed for specialists, but as a source of general surgical knowledge, and for general practitioners, and as a text-book for students it is not surpassed by any that has yet appeared, whether of home or foreign authorship.

AN ATLAS OF HUMAN ANATOMY: Illustrating most of the Ordinary Dissections and many not usually Practiced by the Students accompanied by An Explanatory Text. By RICKMAN JOHN GOODLEE, M. S., F. R. C. S. Fellow of the University College, &c., &c. Philadelphia, Pa. Lindsay & Blakiston. 25 South 6th Street. 1879. Price \$2.50 a part.

The first part of the above work with explanatory text is just received from the publishers, and equals our expectations. Those of our readers who have been enjoying the many illustrated works commenced last year to issue from the English press, can safely add Goodlee's Atlas. Mr. Goodlee's reputation as an able anatomist and a clever artist will doubtless be increased by this beautiful work.

The descriptive text is published separately, so that references to the plates is more convenient. It will be completed in twelve or thirteen bi-monthly parts, folio size, each part containing four large plates, two figures in each plate, with 300 or 400 8vo. pages of text.

**MODERN MEDICAL THERAPEUTICS:** A Compendium of Recent Formulæ and Specific Therapeutical Directions, from the Practice of Eminent Contemporary Physicians. American and Foreign. By GEORGE H. NAPHEYS, A. M., M. D., etc. Sixth Edition. Revised and Enlarged. Philadelphia: D. G. Brinton, 115 South Seventh Streeth. 1879.

The above work has been before the American medical public so long, that we might well pass it by without one word of comment, leaving it to the already formed opinions now held of its merits. The secret of its success which has been unprecedented, five editions having been exhausted and a sixth issued, is easily arrived at by a cursory examination.

The physicians of limited leisure for study, or with a limited library, comes into his office seeking the counsel of his mute friends, on the puzzling case of the day. It may be a case of acute rheumatism in the person of an esteemed patient. He turns to page 409 and finds at once remedies proposed by Dr. MacLagan, of Dublin, Dr. Traube, of Berlin, Dr. Stucker, of Berlin, with the doses of salicini and salicylic acid all formulated in neat prescriptions. Continuing his search, he finds advice in the lemon-juice treatment from Dr. A. H. Chandler, of New Brunswick. Further on a résumé of the treatment by Dr. H. W. Fuller, Dr. Finshaw, Mr. Henry Power, F. R. C. S., Dr. F. J. Farre, of London, Dr. Fleming, of Birmingham, Dr. Chambers, of London, Dr. Da Costa, of Philadelphia, and others. Then in order to make consultation of its contents easier, the remedies used in rheumatism are given in alphabetical order, with the names of the authors who recommended them. In short, the book is a ready reference index to current therapeutics, and will keep its place on the office table when the more ponderous and respectable and elaborate times will have gathered on the dust of neglect.

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**REPORT OF ROBERT LEBBY, M. D.** Health Officer, for the fiscal year 1878, to the General Assembly of the State of South Carolina at the regular session of 1878.

Dr. Leiby in this report shows the great advantage which has accrued from his efficient quarantine at Charleston. Like in too many Southern States he is hampered in his action for lack of

means, and he is obliged to plead with the legislature of his State for increased appropriation, as though the work was not a public one, and worthy of the first consideration of legislators. It cannot be long before the most prejudiced representatives of the people will be made to understand the folly of inadequate appropriations for the machinery of the public health ! Dr. Lebbey's appeal should be successful, and we wish him all the success his eminent abilities entitle him.



### SUBCUTANEOUS TENOTOMY—PROPER CREDIT GIVEN TO DR. JAMES H. DICKSON.

We give cheerfully the following correction :

*To the Editors of the North Carolina Medical Journal :*

GENTLEMEN :—In the December number of the JOURNAL, I noticed the statement, that Dr. Hutchinson, of Brooklyn, was the first to give Dr. James H. Dickson, of Wilmington, proper credit for priority in dividing the tendo-Achillis subcutaneously in the treatment of club-foot.

Professor L. A. Sayre in his manual on the treatment of club-foot, page 33, says : “I am informed by Professor A. C. Post that tenotomy was first performed in this country by Dr. Jas. H. Dickson, of North Carolina, who cut the tendo-Achillis in the case of his brother about 1835.”

In several lectures delivered on the subject in Bellevue Hospital Medical College, from 1873 to 1875, I have heard Professor Sayre give this credit to Dr. Dickson.

Yours very truly,

Magnolia, January 10, 1879.

J. D. ROBERTS, M. D.



*Retarded Vaccination.*—Dr. John R. Partenheimer, of Philadelphia, reports (*Med. and Surg. Reporter*, Dec. 21), a case of vaccination with animal virus, in which there was an interval of eight weeks between the insertion of the virus and the vaccine eruption. The case finally went through the usual stages.

## MEDICAL ANNOTATIONS.

### THE QUININE ERUPTION.

From the prominence given to the quinine eruption in the foreign and home medical journals, it would be taken to be a new discovery. Such is not the case, however, for it is a phenomenon well known in the South, where quinine and other cinchona alkaloids are so largely given. There is hardly a physician of a few season's experience who does not have to bear in mind the idiosyncrasies of some of his patients in regard to these alkaloids. For it is not peculiar to quinine any more than to cinchonidia or other cinchona alkaloids, and probably cinchonidia develops the rash more frequently than quinia. This eruption is almost identical with that produced by belladonna, having as a concomitant also the dry throat.

We have seen "sweet quinine" (a substance supposed to be an inferior cinchona alkaloid mixed with pulverized licorice root) produce most alarming symptoms in two cases.

We make some quotations from an interesting article on Quinine Rash from an editorial in the *Medical Times and Gazette*, Nov. 25. "The clinical importance of the quinine rash is due to its great resemblance to that of scarlet fever—a resemblance which has struck all observers and imposed on some. Besides those points which are referred to above, and which Professor Köbner in some recent experiments relied on in making his diagnosis: the swelling of the face and arms, which sometimes occurs quite early in the attack, deserves attention; and the use of the thermometer for twenty-four hours will exhibit very different fluctuations of temperature from those of scarlet fever. If the case can be seen early enough, and the urine examined within a period not exceeding thirty-six or still better, twelve hours after the attack begins, quinine may be detected in it. Either by Briquet's solution, modified by Binz (iodine two parts, iodide potassium one part, water forty parts), which will detect from one-forty-thousandth to one-fifty-thousandth part of quinine; or by Kerner's fluorescence reaction, which consists in adding a concentrated solution of nitrate of mercury to about thirty to fifty cubic centimetres of wine until no further precipitate occurs, filtering and washing the precipitate. If quinine be present in any quantity, the wash-water will fluoresce in ordinary daylight; but if the amount is very small a special instrument is needed to see it.

### DIPHTHERIA.

Dr. O. Whitney, of Pawtucket, read a carefully prepared essay on the subject of "Diphtheria," before the Rhode Island Medical

Society, December 18th, 1848. He quoted largely from medical authorities in support of his conclusions as to the cause and treatment of the disease, which were presented as follows:—

1. There is but one pseudo-membranous disease.
2. It belongs to the same family with influenza, which may, by the same nomenclature, be called the mucons disease.
3. Both are inflammations of the same anatomical structure, i. e., the mucous membrane lining the nares, throat and primary passages to the lungs.
4. The "flux," or product in influenza, is innocuous, and not capable of self-propagation.
5. The "flux" in the pseudo-membranous disease is concrete and raised to morbid specificity, or having self-generating powers.
6. Both branches of this family of diseases have prevailed from time immemorial, and are governed by the same general causes and influences, and modified by the country in which they may have prevailed and individual habits of the people.
7. It is contagious or infectious in proportion to its visible putridity in individual cases; the infecting power being of short duration. This self-generating power lies in both the breath of the sick, and in the more solid discharges from the affected surfaces. "There is no evidence that, as constantly happens in scarlet fever, the active contagiousness of diphtheria extends to a period of convalescence at which the accustomed duties of life can be resumed." There are some animal poisons which are known to increase in the severity of their action by successive inoculations, and to this class it seems probable that the infectious matter of diphtheria may belong.
8. As in influenza, one attack of the pseudo-membranous disease gives no protection against a future attack.
9. Both branches of this family of diseases have had a great number of names.
10. In New England it has borne bad names among the laity, when in the concrete: membranous croup and "putrid sore throat." In the profession membranous laryngitis (cynanche trachealis, obsolete since 1830), and cynanche maligna.
11. When prevalent in the fluid branch, it has generally been known by the Italian word influenza, or influence. For some transient reason it was known as the "Tyler grip" in 1842.
12. It is primarily a local disease, and its immediate effects in the pseudo-membranous branch depend upon severity and locality invaded. The remote results depend upon absorption of the decomposed concrete flux, or membrane.
13. The remote results have a constant relation to the quantity of absorption, which takes place from the throat, little if any being absorbed from the larynx and parts below.

At the conclusion of the reading, President Caswell announced

that, owing to the lateness of the hour, there could be no extended discussion upon the thoughts deduced by the essayist.—*Medical and Surgical Reporter*.

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## MEMORANDUM OF THE AMERICAN PUBLIC HEALTH ASSOCIATION ON LEGISLATION AFFECTING THE PUBLIC HEALTH.

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Whereas :—The American Public Health Association, at its late meeting at Richmond, Va., provided for the appointment of a Committee to advise with the Executive Committee with regard to matters of legislation coming before Congress, during the present season, which relate to the subject of Public Health ; and whereas, the Association instructed the Executive Committee to exert its influence to secure each legislation as will best protect the public health of the whole country :

And whereas, the Executive Committee in conjunction with the Advisory Committee have duly considered the various resolutions presented to the Association, and the present condition of propositions for National Sanitary Legislation :

Now, therefore, we the undersigned, officers and members of the Executive Committee and of the Advisory Committee on Legislation of the American Public Health Association, do hereby declare our opinion to be as follows :

I. That while under ordinary circumstances the Association as a scientific body should hesitate to take the initiative in urging any specific legislation, yet at the present time it is expedient to state as precisely and definitely as possible our views as to what action should and should not be taken by Congress with regard to the Public Health, seeing that we believe that there is great danger of unsatisfactory action on this subject from want of proper and sufficient information.

II. That in view of the great diversity of opinion, among those who attempt to judge, as to methods of quarantine, and especially as to the relations which should exist between national and local systems of quarantine—of the fact that we have not as yet sufficient information to enable us to formulate any system of National Quarantine which might not do more harm than good :—and of our belief that there is a possibility of recurrence of yellow fever in the United States during the coming summer, and which therefore cannot be prevented by any system of National Quarantine alone :—we believe that any legislation, until further investigation has been made, with regard to a National Quarantine, either to provide a new law or to amend or enforce the present one, will be inexpedient and unwise.

We wish, however, that it shall be distinctly understood that we are not opposed to a National Quarantine system, if carefully elab-

orated and placed in proper connection with State and Municipal Sanitary Organizations, but we are well satisfied that it is impossible to organize such a system of the present time.

III. That it is highly desirable that Congress shall, during the present session provide for the proper organization of a Provisional National Health Commission.

IV. That the objects and duties of this Commission should be as follows: *A.* To report to Congress at its next session a plan for a permanent National Public Health Organization, said plan, to be prepared after consultation with State Boards of Health, and with all those who possess special knowledge or experience bearing on this subject. This plan should include one for a National System of Quarantine. *B.* That it should take charge of any investigations into the causes and means of prevention of yellow fever or other epidemic diseases which may be referred to it by Congress, selecting experts for that purpose so far as may be necessary.

One of these investigations, at all events, should be made at some point where yellow fever is endemic, and by experimental methods, as suggested in the report of the Committee on the the general report of the Yellow Fever Commission, presented at the last meeting of the Association.

We do not think that this Commission should be burthened with any administrative duties which are not connected with the investigations just referred to, and it should in no manner be dependent upon, or be connected with, any existing bureau or department of the government.

V. That it is of the greatest importance that this Commission should be composed of men well-known for their scientific attainments and knowledge of Public Hygiene. They should be persons with whom all scientific and professional men of the country will be glad to coöperate and advise; to whom no suspicion can attach that they might consult personal interests or ambition rather than the public good, and whose opinions when presented after due deliberation, will command the respect, if not the assent, of all well educated men. Such persons are not common, yet we are well satisfied that they exist, and that their services can be procured for this very important work.

VI. That the proper selection of these men is a matter of difficulty, and one which will require the greatest care. They can only be selected by some man or body of men competent to judge of their scientific attainments and special fitness. Political or local considerations should have no weight in this matter, nor, unless there are grave legal or constitutional objections, should any officer of the government be burdened with, or allowed to assume the responsibility of, selecting them. After careful consideration of various plans proposed to secure this end, which is felt by all to be vitally necessary to success, we are of opinion that the simplest and surest method, and the one which will command the most general

approval among the scientific and professional men of the country; is that Congress should request the National Academy of Sciences to designate the members of the Commission.

VII. That the number of persons in the Commission should not be less than 7 nor more than 9, that they shall elect their own officers, and that their compensation should not be less than ten dollars per day for each and every day that they are engaged in the work of the Commission, besides their travelling expenses. That the Commission shall be authorized to employ such clerical force as may be necessary to carry out its work, and that the Commission shall fix the rates of pay of its employees and of the experts which it may select and employ.

VIII. That an adequate appropriation should be made to meet the expenses of the Commission and of the investigation which may be placed under its direction.

IX. That upon the request of the Commission, the Secretaries of War, or the Navy, and of the Treasury or other Departments, and the Attorney-General shall be authorized to detail officers from their several Departments to aid in the investigations undertaken, the number so detailed not to exceed three from any one Department at the same time.

X. That it is highly desirable that there should be added to the Standing Committee of the Senate and House of Representatives, a Committee on Public Health.

XI. We are entirely convinced that the future of Public Hygiene in this country depends mainly upon the proper organization of State and Local Boards of Health, and upon such organization of State and utility by the people and their legislators that the necessary means and powers shall be granted to them to enable them properly to perform their duties. We believe that the general government can do much to stimulate and encourage the formation of such Boards, and that an important part of the duty of the Provisional National Health Commission which we have recommended, will be to point out what can best be done to forward this object.

Such Boards can do good work, not only for their own locality, but for the nation, and if the nation will pay for this work, it will be most cheerfully done, especially if a proper Central Health Organization be arrived at, with which they can coöperate, as we hope and believe will be the case if the plan which we have suggested be carried out.

XII. In conclusion, we would state that in our opinion the true interests of Public Health and of Sanitary Science in the United States are in grave danger at the present time, and that it is the duty of all professional and scientific men, both as individuals and as members of learned societies, to endeavor to prevent premature legislation which is now threatened, but which we believe the great majority of our National Legislators will oppose if properly informed upon the subject.

[Signed]



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Edward H. Janes, M. D., Health Department, New York City, Secretary.

Henry B. Baker, Secretary State Board of Health, Michigan, Treasurer.

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T. A. McParlin, M. D., Surgeon, U. S. Army.

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### MECHANICAL RESTRAINT FOR THE INSANE.

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Dr. I. (sane) R. (ay) in a review in the *American Journal of the Medical Sciences* of the works of Dr. Lindsay and Dr. Bodington on non-restraint in the treatment of the insane, gives us his very decided opinion of the way this vexed question stands just now.

The advocates of non-restraint have taken great pains to promulgate their teachings, but by the showing of the books reviewed these English teachers have not practiced what they preached:

"That we are not mistaken," says Dr. Ray "is abundantly shown by Dr. Lindsay, who tells us that restraint is used in many of the largest hospitals and private asylums in England and Scotland, and even in some, where it is supposed to be prohibited. His testimony, accompanied as it is, by names, and other circumstances, settled this question, and we hope never more to be reproached for not following a method of management triumphantly established in Great Britain by universal consent." We only wish to show, says Dr. Ray, "that the statement so confidently made, both here and abroad, respecting the abandonment of all mechanical restraint, is not true, and that the obloquy attempted to be fastened upon us, for preferring the old ways is utterly undeserved."

It is a great relief then to know that American Superintendents of the Insane Asylums are not the bunglers Dr. Bucknill would have us believe they are, and that their practice is based upon the necessities in individual cases, just as they do in England and elsewhere.

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### EDITORIAL NOTICES.

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REED & CARRICK'S Maltine advertise elsewhere possesses the qualities of similar preparations, while it has also some of the pleasanter qualities as a beverage. Malt and its preparations may now be considered an addition to our standard dietary, and medicines.

WINE FOR INVALIDS.—It is well known that there are cases when the most strict advocates of temperance are obliged to use some

sort of Wine, especially those who are old and infirm. Many weakly females as well as invalids and debilitated persons in warm weather need a little strengthening wine. The great difficulty has been in procuring a rich port that is reliable. There are many cases where Wine would be used to great advantage in place of alcoholic drinks if only a genuine article could be had, and upon which physicians could rely as being strictly pure, without alcoholic admixture. The Port Grape Wine of Alfred Speer, of Passaic, New Jersey has been analyzed by chemists in nearly every State, and have always been proved strictly pure and beneficial. The Port Wine is now being used in hospitals and by families for medicinal purposes, also by Churches for Communion service. It is principally sold by Druggists. Mr. Speer's mode of conducting the fermentation is such as to retain the rich flavor and sweetness of the grape without much fermentation to create stimulative properties.—*Transcript*.

Additional proof of the superiority of Warner & Co's. pills :

Pil : quin. sulph. sugar-coated. Warner.

In a minute the coating began to dissolve, and was completely dissolved in five or six minutes.

Water milky from sugar-coating.

Surface crumbling.

Surface crumbles, leaving liquid opaque. Broke up completely after an hour and a half.

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## BOOKS AND PERIODICALS RECEIVED.

On Fracture of the Femur, by Edward Borek, M. D., with illustrations. St. Louis. Geo. O. Rumbold & Co., 1879.

A case of so-called Xeroderma (or parchment skin) of Hebra. By Louis A. Duhring, M. D., Professor Skin Diseases, University of Pennsylvania.

Second Annual Report of the State Board of Health of the State of Wisconsin for the year ending December 31st, 1877.

Silica vs. Ammonia. Results of a Comparative Soil Test of Poppleins Silicated Phosphate with Peruvian Guano, &c., &c. Report of Dr. R. A. Ledoux. Director of State Experiment Station, Chapel Hill, N. C. Circular No. 56. 23 pp. Farmer and Mechanic, Raleigh, N. C.

Annual Report of the Surgeon-General of the Navy to the Secretary of the Navy for the year 1878. Washington: Government Printing Office. 1879.

The Medico-Literary Journal. A monthly devoted to the diffusion of medical knowledge among women. Mrs. M. P. Sawtelle, M. D. Editor and Publisher. Vol. 1, No. 4. San Francisco. December, 1879. Price \$3.00 a year in advance.

Epithelioma of the Cervix Uteri. Amputation with Paquelin's thermo-cautery. By H. P. C. Wilson, M. D., Baltimore, Md., 1878.

Notes on a Lost Race of America. By Lieutenant A. M. Vogdes, U. S. Army. From the American Nationalist. January, 1879.

The Scepticism Prevalent Regarding the Efficacy of Aural Therapeutics. To what extent is it justifiable? By Samuel Theobald, M. D. Baltimore, Md. Reprint from Amer. Medical Journal, 1879.

Further testimony in favor of large probes in the treatment of Strictures of the Nasal Duct. By same author.

Physiology: Preliminary courses of Lectures. By James T. Whitaker, M. A., M. D. Illustrated. Cincinnati: Charles R. Murry, 103 W. Sixth Street. 1879. Price \$1.75. From Robert Clarke & Co., 65 W. Fourth Street, Cincinnati, Ohio.

Southern Practitioner. Vol. 1. No. 1. Editors: G. S. Blackie, M. D., Deering J. Roberts, M. D., T. Chalmers Dow, M. D., Duncan Eve, M. D. A new candidate for professional favor, is published at Nashville, Tennessee, at \$1.00 a year in advance.

Illustrated Catalogue of Surgical Instruments. Manufactured by Shepard & Dudley, New York. Instrument makers by special appointment to New York State Hospital, the New York Eye and Ear Infirmary, the New York Ear Dispensary, the Roosevelt Hospital. December, 1878. Price 50 cents. As a book of ready reference for suggestions of mechanical surgical devices alone, this volume is worth the price. Many of the surgical text-books of twenty years ago are far inferior on points of great, practical importance in answering the question "What shall now be done with my patient?" We advise our readers to secure a copy.

# NORTH CAROLINA MEDICAL JOURNAL.

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M. J. DeROSSET, M. D.,  
THOMAS F. WOOD, M. D., } Editors,

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Number 2.      Wilmington, February, 1879.      Vol. 3.

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## COUNTRY CLINQUES.

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IV—FIVE CASES OF POISONING—1. OPIUM. 2. BELLA-  
DONNA. 3. GELSEMIUM SEMPERVIRENS. 4. FOWL-  
ER'S SOLUTION. 5. CORROSIVE SUBLIMATE.

BY A NORTH CAROLINA PHYSICIAN.

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1. Bettie R., white, æt. 30 years, with suicidal intent, swallowed upwards of  $1\frac{1}{2}$  fl. ozs., of officinal tincture of opium. In half an hour she was fast asleep, and every effort failed to arouse her. I saw her about midnight. Her face and extremities were cold and livid, eyes glazed, half open, pupils moderately *dilated* and immovable. Pulse was imperceptible, the heart's action feeble dicrotic, irregular with not more than forty contractions in the minute. Respiration consisted of a series of two or three feeble gasps, with complete intermissions of from one to two minutes. There was complete anæsthesia, and muscular relaxation. Selecting the warmest part of the body, I injected under the skin of the præcordial region 1-12th gr. of sulphate of atropia M. x of a solution of gr. iv. to  $\frac{5}{8}$  i.) Ten minutes later the positive pole of a strong interrupted current from a Galvano-Faradic apparatus was applied to the mid-

dle of the neck behind the sterno-mastoid muscle, and the negative pole to the epigastrium. The application was continued ten minutes, with the effect of increasing the number of gasps to six or eight, and the heart beats to over fifty per minute. Two similar doses of atropia was injected at intervals of one hour, the battery being frequently used to stimulate the flagging respiration. At 3 A. M., the pupils were widely dilated, and although the eyes remained opened and fixed, the lids contracted slightly when the conjunctiva was touched, and on applying the battery, there were slight convulsive movements of different parts of the body. The pulse, though barely perceptible was seventy, and respiration twelve to the minute, sometimes stertorous, sometimes superficial and still disposed to intermit. Friction of the extremities had been continued all this time. I now directed patient to be stripped entirely, the whole surface rubbed with flannels wrung out of a strong decoction of red pepper. At 4 A. M., the skin was warm, the eyes closed, and moaning and restlessness were elicited under the harsh treatment. By 5 A. M., the stomach, which, soon after taking the poison, had been well supplied with mustard and household emetics, began to reject its contents. Strong coffee was given in large quantities, and emesis encouraged. The smell of opium could be distinguished in the ejections for several hours. Patient was kept aroused until afternoon. She happened to be very ticklish and this circumstance was taken advantage of, with cruel persistency. During the day bruises became visible upon her face and person, from the violent efforts which had been made to arouse her before my arrival. On some parts of the body, redness and swelling were occasioned by the red pepper, but disappeared in a day or two under the local use of sweet oil.

2. C. W., white, *et.*, 20 years, was in the last stages of laryngeal diphtheria. To relieve the exhausting night-sweats and allay the harassing spasmodic cough, a teaspoonful of a mixture containing 1-60th grain of atropia to the fl. drachm, was directed to be taken at bed time. By mistake, a tablespoonful, *i. e.*, 1-15th grain was administered. Two hours afterwards, I found him lying upon the bed, in a stupid sleep, with harsh, stridulous respiration, eyes open, and pupils widely dilated. Skin was cool and dry, circulation good, the pulse showing no appreciable change from the feeble quick

character it had at previous visits. When roused, patient looked around with a vacant, dazed stare, and in a husky tone gave utterance to a confused medley of oaths, prayers, &c., sometimes wildly laughing, again crying hysterically, his arms and limbs meanwhile moving about in an uncertain jerky way. He would scratch and rub and even grasp the throat, as though to remove an obstruction, and there was a constant effort to close the fauces, either by swallowing, or by hawking and expectoration. The scanty sputa consisted of white, frothy, viscid saliva. After a few moments he again lapsed into a stupid slumber. Reasoning that the effects of the poison had reached their greatest intensity, and considering that the symptoms did not justify violent antidotal treatment, I waited for indications, and in the meanwhile did nothing. In a couple of hours, my patient was, though still drowsy and stupid, able to give intelligible answers to my questions, and describe his sensations. There were hallucinations of both sight and hearing. An ordinary tone of voice sometimes sounded to him like the faintest whisper, and again reverberated in his ears like thunder. Sounds, otherwise familiar, gave rise to the strangest associations, and distorted fancies. Objects assumed not only exaggerated size, but the most grotesque and fantastic shapes and colors. These illusions gradually disappeared in the course of the day, during which patient slept refreshingly at intervals. Pupils remained dilated for twenty-four hours, and two days elapsed before reading could be done with comfort. For more than a week, both night-sweats and cough were much relieved, and no permanent ill resulted from patient's unfortunate mistake.

3. F. H., white, an interesting boy of two years, of a nervousanguineous temperament was affected with catarrhal fever, for which the attending physician prescribed fld. ext. of gelsemium, two drops every three hours. The medicine was dispensed at a drug store, in what is called a French oval vial, i. e., having two long sides oval, and meeting at each extremity of the oval in a shorter square surface. The druggist wrote the directions as follows: "Two (2) drops every three hours." The word "two" and the first parenthesis mark were on that part of the label which was pasted on the flat side. The second parenthesis consisted of a short nearly straight line, the word "three" being written under it. In

looking at it from the front, a casual observer would have read "21 drops every three hours." This quantity was given, and in a few minutes the child sank into a quiet slumber. It was half an hour before the mother was attracted by the death-like quiet of its sleep. An attempt to arouse it, met with complete failure. Raising it from the bed she found it cool, pallid and perfectly limber. Physicians were immediately summoned, and efforts made to administer emetics; spirits were injected into the bowel, and friction and counter-irritation attempted. Later, electricity was tried. Nothing availed, and in a little more than an hour after taking the dose the child was dead. Twenty minutes before death—when I first saw it—its condition was as follows: The skin was cool to the touch, of a ghastly pallor, but without lividity. The eyes were half open, dull and staring. Through the parted lips, which were of an ashy hue, issued a frothy saliva. There was total insensibility. Every muscle was relaxed, and the weight of the different parts of the body alone determined their position. Respiration consisted of a feeble sigh, about fifteen times a minute. The pulse was not perceptible, but the heart contracted feebly and intermittently about forty times in a minute. The symptoms appeared to be due to paralysis, first affecting the voluntary muscles generally, and rapidly extending to the vital centres. Death occurred without a struggle, the heart failing before the lungs ceased to act.

4. The writer, while suffering from fever, supposed to be malarial, and after taking large doses of quinia without benefit, was advised by his medical attendant to try *Liq. potassæ arsenitis*. Ten drops of this, with an equal quantity of deodorized laudanum were given every six hours. Two hours after the third dose, he was seized with violent abdominal pains, radiating from the umbilicus. The pains were at first intermittent, but speedily became continuous, and were so severe that the sufferer was obliged to cry out in his agony, and the surface was bathed in a cold perspiration. Hiccough and retching were present. The hypodermic injection of  $\frac{1}{2}$  grain of morphia promptly relieved the pains, which, however, returned with scarcely less severity at the expiration of a few hours, and rendered opiates necessary at intervals, for forty-eight hours. Abdominal soreness and tenderness persisted, and the stomach remained irritable for a week or more. During this time the most absurd and fright-



ful illusions disturbed the mind. One which frequently recurred, was to the effect, that the writer was in pursuit of his head, which attached to his body by only a slender elastic cord, was being dragged by goblins over some rough rocky hills, in the neighborhood of some patients, who had been visited just before his illness. The striking against the sharp stones, the fear that the cord might snap, the disappointment as the head was again and again jerked out of the eager grasp, were all experienced with frightful vividness. The force of the poison apparently spent itself upon the smaller intestines. Painful tormina preceded every evacuation for several days : and the dejecta, which were horribly offensive consisted largely of black, disintegrated blood, and shreds of mucous membrane. Larger pieces and even casts of the small intestine, several inches in length, were found.

5. Mrs. R., a delicate nervous woman of 40 years, was attacked with violent iritis. I saw her in consultation, 24 hours afterwards. There was intense pain and photophobia, the sclerotic and conjunctival vessels were much engorged, the pupils contracted and of a grayish hue. The instillation of a solution of atropia, revealed extensive adhesion to the lens. I advised the continued use of atropia, blisters to the temples,—(no leeches, either natural or artificial, were available,)—and internally 1-6th grain of corrosive chloride of mercury in mucilage, just after each meal. Upon administration of the second dose, symptoms of gastritis ensued. Had suitable remedies been employed, the inflammation could doubtless have been much moderated, if not actually prevented. It was two hours before the attending physician finished his abuse of me, and caused patient to swallow some raw eggs. I saw no more of the case, but learned that for several days the lady's life was despaired of. The iritis promptly subsided, in the presence of the more formidable inflammation.

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#### V—THREE CASES OF STRANGULATED HERNIA.

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1. Mrs. S., *æt.* 46 years, an industrious widow, had been annoyed for sixteen years with a large femoral hernia of the right side. She wore no truss, the hernia protruding while she was on her feet, and

generally returning of itself, when she lay down. Sometimes she had experienced difficulty in replacing it, and once it had been down for thirty-six hours. During the last few hours of this time she suffered considerable pain, and vomited freely; but finally the bowel was reduced, without her being able to tell exactly how. Shortly after this, the hernia having been down all day, she was again attacked with severe pain and vomiting. Trusting to the same chance which had befriended her on the preceding occasion, she delayed sending for a physician for twenty-four hours. I saw her thirty-six hours after symptoms of strangulation appeared. Taxis had been persistently attempted, and the parts were so exquisitely tender that she shrank from the slightest touch. She would not consent to be etherized, when I told her that I should proceed to operate, if very slight taxis did not afford relief. I was dismissed, only to be sent for twenty-four hours later. Her condition was that of marked collapse—*facies Hippocratica*—cold extremities, feeble pulse, and labored respiration. Pain and vomiting continued. The hernia had much increased in size, approximating that of one half of a Seville orange, with a marked convexity, and high-toned tympanitic resonance. The skin over it was of a purplish hue, and inclined to be cedematous. Tenderness was much less than the day before. I anticipated sphacelation of the intestine and so informed my patient, but she demanded the operation now, as obstinately as she had the day before refused it. Having etherized her, and shaved the groin, I made a longitudinal incision, commencing at Poupart's ligament and extending over the greatest convexity of the tumor. Primed, as my memory was, with the list of fasciæ and tissues, with which theoretical surgery covers a hernia, I was much surprised when the bowel protruded through the wound, before I had completed my first incision. The knife had not penetrated deeper than 3-16th of an inch, and the very slight gaping of the wound would otherwise have led me to infer that I had not yet divided the subcutaneous cellular tissue. The bowel was not wounded. Continuing my incision upon a grooved director, I found that the much attenuated deep fascia *alone* constituted the sac of the hernia. Its contents were convolutions of the small intestine, of a dusky red hue, and with grayish spots varying in size from a pin's head to a three cent piece, upon its surface, which was sticky and

glistening. The bowel was so filled with gas, that I found difficulty in ascertaining the point of stricture. I accordingly punctured it with a hypodermic needle, and allowed the gas, which was very offensive, to escape. With a probe pointed bistoury, I very slightly nicked the upper edge of the saphenous opening, and a little manipulation sufficed to replace the bowel. A more careful examination confirmed the fact of the obliteration of the hernial sac by agglutination with the deep fascia of the thigh. At the lower end of the wound, they could be separated, and a probe passed between the two. To a less extent this was also the case above, but over what had been the most prominent part of the hernia, the connection was complete. The wound was closed with interrupted sutures of silver wire, and additionally secured by a compress and figure of eight bandage. Patient recovered quickly from the anæsthesia, and expressed herself as feeling comfortable. But there was no reaction from the collapse which preceded the operation, and she died twenty hours afterwards. At no time was there marked tympanites, nor had there been much abdominal pain, except in the immediate vicinity of the hernia. A post-mortem examination was not permitted.

2. Mr. T., æt. 70 years, was from an early age, the subject of a large serotal hernia of the right side. By long experience, he had acquired great skill in the taxis, and had several times replaced the hernia, after physicians had failed in the attempt. His practice was to grasp the hernia, which was as large as two fists, with both hands, and while pulling upon it with some force, rotate it rapidly upon its neck as an axis. His good luck as well as his skill at last failed him, and I was sent for after he had been vomiting and suffering pain for a night and a day. According to his description, the hernia was this time larger than ever before, the increased size, being most noticeable just outside the external abdominal ring. At this point I thought I distinguished convolutions of intestine, and percussion elicited resonance, while below there was dulness. I had no anæsthetic with me, and taxis availing nothing. I punctured the resonant portion of the hernia at several points, with a hypodermic needle. Considerable gas escaped, which markedly diminished its size. Turning to lay aside my needle, I was agreeably surprised to hear the characteristic rumbling gurgle, which denotes the return

of a hernial protrusion. The moment I turned away, the old man commenced his pulling and rotating manipulation which resulted in immediate relief. No unpleasant results followed the punctures. I regard the procedure as harmless, if carefully done with a small needle, and believe that if I had thought of puncturing the bowel at my first visit to Case 1, she could have been relieved of what proved to be a very slight stricture, without an operation, and in time to save her life.

3. Mrs. S. æt. 52 years an intelligent monthly nurse, was suddenly seized with abdominal pain and vomiting. I saw her eight hours later. She was suffering extremely, and vomiting almost incessantly. She referred the pain to the right groin, and told me that many years ago she had had similar attacks—that then a tumor as large as an inverted tea cup had appeared at the spot, and the symptoms had only subsided after its reduction by a physician, since dead, who had informed her that she was ruptured. During the last few years she had occasionally suffered with pain in the abdomen, which appeared to radiate from the right groin, and a small lump, which she assured me had doubled its size that day, had always been present since she was told that she was ruptured. Half a grain of morphia, administered hypodermically, quieted her sufficiently to make a thorough examination. I found a tumor directly under Poupart's ligament, and over the saphenous opening, rather flat, with a reddened surface, and about the size and shape of a hen's egg. It was dull upon percussio, very sensitive, and only slightly movable. The abdomen, except in the immediate vicinity of the tumor, was not sensitive to pressure. Cough did not communicate an impulse, but the effort to cough was most unsatisfactory, on account of the pain it caused. Patient had been constive for several days, and the attack came on while violently straining at stool. I concluded that I had to contend with a case of strangulated hernia; and the symptoms being urgent, I called into consultation a medical friend of large experience, who confirmed my diagnosis, and recommended immediate action. The patient resigning herself to our judgment was thoroughly etherized, and taxis tried, *secundum artem*. This failing, the tumor was punctured in various places, particularly at its upper part (as we thought it possible that only a small knuckle of intestine might be involved), with a hypodermic needle. Upon

applying suction, a little bloody serum, without odor, was withdrawn. Taxis again failing, an incision was made over the most prominent portion of the tumor, and the tissues carefully divided. Beneath the fascia propria, a sac was reached, which above appeared to be continuous with the fascia—at least no opening into the femoral sheath could be discovered. The sac was accordingly opened, when a little serous fluid escaped. The contents of the sac, not in the least engorged, were a firm, smooth, gland-like body, covered with a membranous envelope, and adhering to the walls behind, and to the neck-like portion above. Apparently, it was the remains of a former mental hernia, and our diagnosis of strangulated hernia was an entire mistake.

Before closing the wound I embraced the opportunity of examining into the effects of puncturing deep tissues. The serum which escaped upon opening the sac was without admixture of blood. The punctures could scarcely be discerned by a minute red point on the inside of the sac, and on the contents of the sac, not a trace of their entrance could be found, although both tissues showed plainly a free vascular supply.

Knowing now that we had to deal with an intra-abdominal obstruction, and being unable after most careful palpation, to locate it, we elevated the hips, and slowly injected more than a gallon of tepid water into the bowel. Similar injections were repeatedly given during the next twenty-four hours, the abdomen meanwhile becoming tympanitic, and the bowels rolling as though endowed with separate existence. Morphia was given hypodermically at intervals of eight hours, to relieve the excruciating pain. On the day after the operation, a marked prominence with high pitched resonance, was detected in right side, on a level with the umbilicus, and patient now referred her pain to this spot. The stomach would retain nothing and large enemata having failed to relieve the obstruction, they were discontinued, and nourishment attempted by the rectum. Patient sank rapidly. On the fifth day, the vomited material had a distinct faecal odor. Electricity had already been used, one pole being placed at the arms, and the other passed over the abdominal surface. In the hope that I might accomplish more, if the bowel could be directly acted upon, I attached a good sized catheter wire to one pole of my battery and slipping the elastic rubber upon it, I

cut off enough of this to allow me to screw on the end of the wire a small brass knob from a Leyden jar. Having covered the knob with buckskin, I passed my improvised electrode upon the sigmoid flexion, and, the other pole being moved about on the abdomen, I made a few minutes application of an interrupted current (as strong as patient, under the influence of morphia, could bear) from a Galvano-Faradic apparatus of one large cell. Patient expressed herself as feeling *differently*—although not relieved—after the application. Four hours later, I found her passing black, tarry, horrible, offensive material from the bowel. Recovery was rapid, and she contends that her relief was due to the use of the battery, as above described. The stools were carefully examined, but no trace of sphacelated or cast-off intestine, was at any time found.



#### "CASCARA SAGRADO" AGAIN.

We notice that the article published in our October number, from the pen of Dr. W. P. Gibbons, referring to certain "new remedies" so called, of California origin, has been misinterpreted in some quarters as denying medicinal virtue to the plants in question. This was not its design, nor did the therapeutic value of the remedies enter into consideration. The object was to expose the deception of introducing preparations of old remedies under new names and claiming originality without deserving it. Several of the plants in question are really valuable.

Whilst on the subject we will correct an error in spelling *Cascara* (bark) *sagrada* (sacred) is the common Spanish name of the *Rhamnus Purshiana*, and means simply *sacred bark*. The adjective should end in *a* and not in *o* as it is commonly spelled. The old Spanish or Mexican population of the coast had a number of medicinal herbs which they employed in default of officinal plants. Not knowing the botanical names, common names were given indicating their supposed good qualities. "Yerba santa" was holy herb, "Yerba buena" good herb, and so on.—*Pacific Medical and Surgical Journal*.

## NOTES ON SYPHILIS.

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### SYPHILIS OF THE BRAIN.

By THOMAS F. WOOD, M. D., Wilmington, N. C.

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T. G., a young man aged 27 years, consulted me for syphilis. He had a solitary chancre on the glans, now nearly healed, but still having a hard base. There was also an indurated bubo in the left groin. He had been taking medicine from a druggist for three months before he consulted me, but had not followed the directions with any regularity, he tells me.

At this day (May, 1878) he was emaciated, and presented a forlorn appearance. After exacting from him compliance with my rule, that he must remain under observation twelve months, I commenced the treatment with minute doses of bichloride of mercury (1-32 gr.) three times a day. His improvement was so substantial that in three months he had regained his loss of flesh, and his visits to my office became more and more infrequent until the latter part of July he presented himself daily with malarial neuralgia. For this condition I gave cinchonidia in drachm doses daily, with hypodermic injections of morphia.

The weeks preceding his attack of malarial neuralgia, he had suspended the mercurial upon his own responsibility. The cinchonidia had little effect in lessening the intensity of the neuralgic paroxysms, apparently, but relief having been temporarily effected, he became careless. I again lost sight of him until he returned to my office early in August with syphilitic iritis of the right eye.

In order to control him better I was obliged to confine him to his room, using atropia solution to his eyes and hypodermic doses of morphia to relieve pain. The case of the iritis was completed without anything unusual, but the patient had been salivated under the influence of a mercurial solution of calomel in iodide of potassium.

Recovery from the iritis did not rid him of the facial neuralgia and headache, and long after the influence of the atropia had worn off the pupils were largely dilated in a bright light, contracting very slowly, and sometimes not perceptibly.

Day by day the patient became more apathetic about affairs

around him, responding to questions intelligently when his attention was fixed but soon lapsing again into hebetude and listlessness.

At this time there was a copious flow of saliva, long after the mercurial salivation was overcome. The tongue was thickened, and seemed not to respond readily to the will of the patient. At times it was difficult to make out what he was saying by the closest attention.

At this stage of his disease my diagnosis was syphilis of the brain, as yet not localized. I directed 10 gr. doses, three times a day, of iodide of potassium, but after three or four days, gastric irritation was brought on and the medicine suspended. This brings the case up to November 1st.

New symptoms now set in. The patient slept on all occasions, and when aroused from his sleep would start up with a vacant stare, and on attempting to walk reeled like one drunk. His articulation, with dribbling of saliva made the picture of (syphilitic) intoxication complete. The patient had to be constantly aroused for ordinary duties, and his bowels were so sluggish that they yielded only to large doses of epsom salts.

Nov. 10th. The pupils are dilated to-day in a bright light, and there is the same vacant stare, and he has flushing of the face. His appetite is quite good, and he responds to questions propounded with more vivacity. He expectorates largely, but does not dribble. In getting on his feet to walk, he at first staggers, but soon regains his aplomb. His muscular endurance is greatly diminished. He is anxious about his slow recovery and wants to know "How long?"

Nov. 15th. He has been gloomy and listless for a day or two, and goes to bed several times a day with his clothes on, and stays there until urged to get up. Chews tobacco in large quantities and spits everywhere. His eyes remain unchanged since the 10th. Solution of bichloride of mercury (1-32 gr.) and iodide of potassium (3 grs.) in solution with water are given three times a day, to be continued until further orders.

Nov. 23d. His condition is not so good. He talks somewhat at random with the same lingual impediment. His brows contract when he comes into the light, and his pupils contract very slowly, never reaching the normal contraction. There is no synechia to



account for this ; the pupillary circle is symmetrical. He is weaker and not so much inclined to sleep in the day. He asks to have morphine injected for pain in his head, which is declined by me, but he prevails on one of my medical friends by a subterfuge to give it to him. He acts like an opium eater in some respects, and I become so much impressed with this fear, that I call the attention to his friends that they may observe him more closely. Nothing is discovered to bear out my suspicion.

Nov. 30th. He is inclined to wander about. Gets his meals and accompanied by his little brother wanders until meal time again. His peculiar manners attract passers by on the streets. He stares at them with his wide-open pupils without seeming to recognize any one. He is subject to hallucinations. Has talked all day about a prescription for some pills I had given him, and wants me to look at the paper to see if it is all right, searching again and again in his pockets without finding anything. The next day he comes to get a set of jewelry some friend said I had for him, but is easily convinced that something is wrong with him.

He has been taking now for thirty days tr. nux vomica, 15 drops three times a day, and 1-32 gr. of bichloride of mercury, with 3 grs. iodide potassium, three times a day. His food has been generous and nourishing and he is in fairly good condition. He walks with little hesitation.

Dec. 12th. On examination to-day he appears to have improved. The pupils respond promptly to light ; the gait is steady but slow ; but there is still left a peculiar silly air, and obtuseness not natural to the patient. The bichloride solution and tinct. nux vomica still continued.

Dec. 14th. He complains of pain in the head. The pupils are not so sensitive to light as on previous examination. The pain now, he is able to locate in the right side over the orbit, and directly backward to the occiput. It comes on in paroxysms, where, as heretofore, the pain never entirely left him. Morphia is resolutely withheld, however, and he is encouraged to persist in the treatment.

Dec. 25th. He has been drinking on this one or two subsequent days, but his appearance has greatly changed. He is in better flesh, and his intellectual faculties are brighter.

Jan. 25th. He is almost entirely restored, and is anxious to go

to work. His improvement under the daily use of mercury up to this time has been so great, that he is advised to suspend it, but to report as soon as the first bad symptom presents itself.

Case II. Robert C., aged 28, was admitted to the Seamen's Home Hospital, October 9th, with chronic ulcer of the leg. "He is a pale, anemic, and generally dilapidated American sailor. There are two or three cicatricial stains near the site of the present ulcer at the ankle. Two weeks after admission a rodent ulcer appeared on the *corona glandis* which was not observed before." He states that he had a chancre just before he shipped last time, about Sept. 4th, 1875. He thought it was all healed until now. He says he had syphilis sometime ago, but no buboes resulted.

He was attacked after admission with tertian ague.

His ulcer was washed with solution of chloride of zinc, and dressed with lead cerate to which was added carbolic acid.

The constitutional remedy first employed was : syr. ferri. iod.  $\bar{\text{z}}$  i., potassii iodidi,  $\bar{\text{z}}$  ij., aquæ ad.,  $\bar{\text{z}}$  ij. Dose, teaspoonful three times a day. This was continued three months. His ague was treated exclusively with cinchonidia, and successfully. His ulcer was cured at the time of his discharge from the hospital.

Dec. 16th. Patient was readmitted. While waltzing with a ship-mate, he fell in an epileptic fit. On admission, one hour after attack he was pale, and bewildered : his pupils widely dilated, not responding to the light of a lamp. He cannot protrude his tongue. It is thickened, and covered with white coat. He is aphasic, halting at labials. A solution of bromide of potassium is ordered, and he is to be closely watched during the night.

Dec. 17th, 10 A. M. His pulse is slow, temperature normal, tongue enlarged and furred ; memory all gone ; has no recollection of his attack ; pupils not responding to light ; halts at words commencing with labials, and answers in a few not very coherent words.

Dec. 17th, P. M. The pupils are more sensitive to light, but aphasia still exists. There is no paralysis to be discovered. The tongue which has been protruded for the first time on request is found to be wounded by the teeth ; the indentation of the teeth is well defined, which is due to the great enlargement of the tongue.

Dec. 18th, A. M. Memory is recovering. He remembers that just before his attack he had been stooping over his work and felt

light-headed ; he thought this was the cause of his attack. Had never had a fit before. He has still an air of bewilderment, and is anxious to return to his vessel, as he has already overstaid his time. He expectorates largely, of pure saliva. On rising from the bed, he totters and is obliged to sit down again. His hands are tremulous, and his general appearance is that of a man recovering from a deep debauch.

Iodide of potassium in five grain doses, in solution with extract sarsaparilla and water, is given three times a day, and purgatives ordered. From this date he continues to improve, although anemia is persistent.

He is discharged December 31st greatly improved, although easily fatigued by slight exertion. He has been favored by his captain with light duty in consideration of his condition.

January 15th. He has reported for examination. He has been gaining strength and flesh, and is able to do duty as usual. He has enlargement of post-cervical glands, and a few pustules on the scalp covered by the hair that no diagnosis was made. The post-cervical enlargement is evidently a remnant of syphilis.

*Remarks.*—These two cases are evidently due to syphilis. The time elapsing between the initial sore and the grave constitutional symptoms was barely twelve months, in the first case, a course unusually rapid, but quite agreeing with a remark of Bäumler: “Syphilitic affections of the nervous system occur mostly during the tertiary period of the disease; but this rule is not without exceptions, since grave nervous systems may occur at quite an early period—in the stage of eruption.—*Ziemssen’s Encyc.*, V. III, p. 220.

In the second case the course of development agrees more closely with the classical description of syphilis of the brain. In both cases I had pronounced a favorable prognosis, although restoration was so long deferred that I began to doubt the wisdom of it. Both patients recovered under the anti-syphilitic treatment, or to speak more accurately, both were bridged over what seemed to be the imminent danger of brain destruction or paralysis, and while not restored to as healthy condition as formerly, the treatment accomplished all that could reasonably be expected. In Case II, I saw what is in my experience a rarity, viz. : a recurrent chancre. On only one other occasion have I ever witnessed such a thing, and I

was very incredulous about its authenticity, inclining to the belief that it was a fresh inoculation in spite of the denial of the patient. I referred the case to Dr. Bumstead, who suggested that it would probably turn out to be a phagedenic chancre, which was the case. Singularly enough this patient died with syphilis of the brain and cord, in the hands of Dr. G. G. Thomas, who kindly called me into consultation, thus enabling me to follow the clinical history through many years.

A review of my limited experience inclines me to believe that syphilis of the brain is more common than we suspect, and that more cases of epilepsy coming on in adult life are due to syphilis than was formerly believed. I am also impressed with the necessity of pursuing steadily the anti-syphilitic treatment, and commencing it before any lesion of the brain or cord occurs. In the early recognition of the disease, and the undeviating treatment by mercurials or iodide of potassium, restoration can be looked forward to with confidence.

A recent lecture by Dr. W. H. Van Buren in the *Medical News and Library* has done no little to reassure me in my study of these cases.

## IODINE IN MALARIAL FEVERS.

J. H. Hervey, of Indianapolis in the *Cincinnati Lancet and Clinic*, claims to have been using the above remedy for the third of a century. He has never considered it a substitute for quinia in arresting the paroxysms of malarial fever, but finds it to be very serviceable in removing the various sequelæ and in preventing relapses. His custom is to use the following formula :

R Tinctura iodinii,

Tinct. ferri chloridi.

Tinct. sanguinariae.....âà equal parts.

13 to 15 drops to be taken after each meal for one to four weeks. This is used after the recurrence of the paroxysms has been arrested with quinia, and the latter is also continued in one-grain doses, before meals, for eight to ten days.—*New Remedies*.

## SELECTED PAPERS.

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### THE YELLOW FEVER AT HAVANA—ITS NATURE AND TREATMENT.\*

By CHARLES BELOT.

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*Pathological Anatomy.*—The examination of dead yellow fever subjects does not always offer the same organic alterations. As cerebral lesions predominate, the abdominal organs are more deeply affected. The ganglions springing from the great sympathetic nerve and forming the solar and semi-lunar plexus, are always more or less involved. The spleen almost always hypertrophied, is filled with blackish incoagulable blood. The blood itself is deeply altered; it is found decomposed in the stomach and intestines, often without there having been any indication of this during life.

The exterior aspect of the dead body is ordinarily hideous. The color of the skin varies in every tint of yellow, as with the dead of jaundice, when the disease has been extremely severe.

*Brain*—In cases where the brain has suffered most, in the continued type for example, where the patient dies suddenly from the third to the fifth day, with visible marks of cerebral congestion, the arachnoid is red, with evident softening of the encephalon, abundant reddish serum in the ventricles, and the choroidal plexus is filled with black blood.

When the disease has lasted from ten to fifteen days, and life passes away in delirium, there often exists an effusion of serum. But with those who have not suffered directly on the brain, this organ is found in its natural condition.

*Spinal Marrow.*—This is more or less gorged with blood in proportion to the spinal congestions.

*Lungs.*—*Heart.*—The lungs and the heart have not presented to me anything special. The pericardium sometimes contains a large

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\*Translated by Col. John Scriven, of Savannah, Ga., who was so impressed with Dr. Belot's memoir that he has with commendable skill and diligence given the paper to the public, "feeling that humanity may claim any contribution, that could tend to prevent the recurrence, and alleviate the suffering, and diminish the fatality of the yellow fever epidemic, of which he was a witness in 1851 and 1856."

quantity of serum ; the cavities of the heart enclose blood in more or less quantity without special alteration.

*Abdomen.*—Very often no alteration is discovered in the stomach. There is found a quantity more or less of dark liquid of a peculiar faint odor. This is the matter of black vomit. The quantity of this liquid is such sometimes that on the least movement of the dead body, it flows out of the mouth and nostrils. Washing the stomach, the mucous membrane is found to be softened, with reddish stains here and there, or particles of waste substance of the size of a pin's head, or layers so incrustated, that they cannot be raised by the handle of the scalpel. I have twice discovered deep ulcerations in this organ. The capillary vessels are more or less engorged with blackish brown blood ; yet these disorganizations are not constant, and often as we said, the stomach shows scarcely any or no alterations.

The mucous membrane of the œsophagus, and that of the intestines, exhibit very nearly the same characteristics as that of the stomach, only in less degree.

On the exterior of the intestines are found stains sometimes yellowish, again deeper—of a red black, which correspond with the alterations of their internal face. Sometimes there is also found either a bilious, or the same black substance, as that found in the stomach.

The abdominal glands are often in a normal state ; the mesenteric glands tumefied, Peyer's glands engorged or ulcerated.

The ganglions which form the solar plexus are red, and, at some points black. The semi-lunar ganglion and the celiac plexus present the same alterations—pressed between the fingers, they are easily crushed.

*Liver.*—The liver, which should be deeply modified after a disease, in which it performs so great a part, often presents no alteration, if no intercurrent inflammation complicates the disease. Ordinarily, it is pale yellow, sometimes softened, at other times resistant under the knife, or again dry and brittle.

Cut across, it presents little black points, more or less filled with blood ; the *gall-bladder* is empty or contains a viscous mass of concentrated bile, deep brown or black.

The spleen, often augmented in size, is gorged with black blood.

The kidneys offer no alterations, if they have not been the seat of local inflammation ; but this complication is rare.

The bladder, sometimes empty, contains blood in certain cases, or the urine is colored, like a concentrated infusion of rhubarb.

In general, with the exception of the black substance contained in the stomach and intestines, the autopsy offers nothing constant, if there is no alteration in the ganglions, which form the solar plexus. If the brain shows a condition indicating affection of this organ, this is not constant—these alterations are the same, as those observed in the cerebral form of typhoid fever. As much may be said of alterations in the intestines, which are identical with those produced by the abdominal form of typhoid fever.

*Differential Diagnosis.*—In the precursory period, the symptoms vary essentially according to the temperament of the individual atmospheric changes, and the circumstances under which the disease is produced. It is then upon the *ensemble* of symptoms, and the probabilities furnished by the condition of the locality, that the physician first bases the elements of his diagnosis. So in summer, or it matters not in what season of the year, if there are great variations in the temperature : if called to a foreigner who presents any of the symptoms we have enumerated, he will be prudent in supposing, that he will have to treat a case of yellow fever, especially, if any other well defined cases exist in the same locality or in the neighborhood. Four years ago, in the course of the month of January, I had charge of a young man, whom I had treated in July the preceding year. His sickness had lasted five days, and with the exception of black vomit, all the other characteristic symptoms of vomito were presented. This man could be considered as perfectly acclimated. In the month of January following, he was taken sick again. He complained of violent headache, pains in the limbs, especially in the loins : the tongue was natural : the pulse was strong, frequent, hard : the eyes injected, the face florid, I thought I had before me a case of small-pox, which then prevailed epidemically. But what was surprise on the third day, instead of the eruption I expected, to have the black vomit appear all of a sudden ! The error in the diagnosis was flagrant, but it is not one in which my brethren do not participate.

Certain epidemics offer characteristics wholly special. Sometimes,

it is the cerebral type with continued fever ; again, the hemorrhagic type ; but it always presents itself with insidious cases. In 1854 I had charge of the captain of the Spanish brig "Domon." He entered the hospital in the month of June, with the appearances of a saburral, gastric condition. Nothing indicated a case of yellow fever. The patient complained of pains in the head on raising himself ; but these ceased in the course of the day. He had no pains in the loins or in the joints ; natural heat and moisture of the skin, sometimes sweats, followed by dryness not disagreeable to the touch ; pulse regular at 90 ; conjunctiva natural ; tongue saburral, whitish ; pulse weak, a slight catarrhal cough. I administered a purgative of castor oil, emollient injections, a diet drink slightly acidulous ; in the evening a mustard foot-bath, and also a Dover's powder in an infusion of elder. The next morning his condition was nearly the same, the pulse had not changed, the tongue was coated, and the headache had diminished. Prescription : An ounce of sulphate of magnesia in a half pint of water with six grains of nitrate of potash. The patient had copious stools, vomited abundantly, and perspired much. In the evening, the pulse was weaker, but preserved the same frequency. I ordered a foot-bath, and a half grain of opium, because the patient complained of insomnia.

On the morning of the third day, after a good night, the headache had disappeared almost entirely, but the patient complained of pain in the loins, which he attributed to a chill and the recumbent position. The tongue was still saburral, white in the middle and rosy towards the edges ; gums natural, pulse at 72. The patient wished to leave the bed, but I dissuaded him. Prescription : Frictions on the spine, acidulous drinks, emollient injections ; diet. In the evening the pains in the loins diminished. During the day, somnolence, attributed by the patient to some derangement of the head. Pulse again 80. *Mustard foot-bath and diaphoretic potion.* At night, sleep quiet, but in the morning suffering anew from extreme lassitude ; pulse 74 ; skin moist, tongue white.

Taking advantage of this new remission, I administered sulphate of quinine, and insisted on diet and quiet in bed. The evening of the fourth day was good : the pulse was full, but gave only 76 pulsations. The patient complained of insomnia, yet he had slept during the day. He complained of buzzings, which I attributed to



the sulphate of quinine. *Potion containing opium.* This night was good, and the next morning, that is to say at the commencement of the fifth day, his condition was satisfactory—pulse at 76, skin moist, head free; still a little lassitude, tongue lightly coated. Prescription: Chicken broth and lemonade. I allowed the patient to leave the bed for two hours. In the evening, the head free as in the morning, but persistence of lassitude; stomach sunk in; pulse 78; I prescribed an injection.

On the sixth day, the patient said he had passed a good night. Still the urine was yellow and loaded. I then learned, that this man two years before had a disease, the convalescence of which had been complicated with jaundice. I advised him to be extremely prudent in his nourishment. I directed broth, infusion of rhubarb, injections, and the use of the juices of acid fruits.

At four o'clock in the afternoon, the patient complained of pains in the epigastric region and of acid eructation; skin warm, no stools. A sinapism was applied to the stomach, and a purgative injection given. The night is bad, disposition to vomit exhibited and resisted with bi-carbonate of soda.

On the seventh day the patient is restless; the pulse irregular; no stools, the nausea is renewed, and at 10 o'clock in the morning, he throws up an enormous mass of characteristic black substance. Dating from this time, the disease triumphs, the most appropriate treatment is ineffectual, and the patient dies.

In the autopsy I found nothing in the brain; the liver was hypertrophied and yellow; the spleen increased in size and gorged with black blood; the stomach filled with the matter of black vomit. I ask of all my brethren at Havana, who is the physician, under these circumstances, would have thought to find himself in the presence of yellow fever in the first seven days of this case?

During the epidemic of 1862, I saw some patients who were affected with headache only; others with extreme lassitude, and without intense fever or headache; others with vomiting and diarrhoea, and without headache or pain in the loins, and yet on the third day, all had well defined yellow fever.

So, since yellow fever does not offer, in the period of invasion, the peculiar symptoms which distinguish it essentially from other diseases, the physician in view of this doubt, should direct his

treatment, as for yellow fever. This special treatment cannot aggravate a malady of another nature, presenting the same symptoms.

If the diagnosis is often obscure in the period of invasion, it is not so in the second period. It is useless to describe anew the symptoms by which it is characterized; for by referring to what has been already stated, it will be easily seen, that no more confusion on this subject is possible.

I still admit that bilious remittent and pernicious intermittent fever may present, in certain cases a strong analogy to yellow fever; but bilious fever offers no alterations so sudden as those of yellow fever, and the urine of bilious fever does not betray the presence of albumen; save at an advanced period of the disease, while in yellow fever, this is shown in the second period. The symptoms dependent on the presence of bile in the blood, are not so common in bilious as in yellow fever, and if it is true, that there exists some relation between light yellow fever and grave bilious remittent fever, the similitude ceases at a more advanced stage of the disease. Finally, yellow fever presenting itself oftenest in the epidemic form, sporadic cases are few. It is otherwise with bilious remittent, which is almost always sporadic. When atmospheric conditions produce intermittent fevers, and yellow fever exists at the same time, it is positive, that the latter also assumes the intermittent type, but the *ensemble* of the symptoms of the two diseases soon distinguishes the one from the other.

The last period is that which allows the least latitude for an error in diagnosis. The alterations are too visible and two characteristic: the symptoms furnished by the hemorrhages, the vomiting of blood, the delirium, the urine, the lesions of the nervous system, form a group, which it is impossible not to recognize. Still, there exist certain conditions, which offer some analogy to other diseases. Thus in pernicious fever, and in malignant fever of warm countries, the invasion of the third access, which generally terminates in death, is characterized by nervous symptoms, which have a certain resemblance to those, which we have noted in the termination of yellow fever.

It has been stated, that black vomit is not a symptom exclusively characteristic of yellow fever. It occurs in some cases of putrid

fever caused by miasmatic poison. In the epidemic of small-pox, which broke out in Havana in 1858, many cases of small-pox commenced with black vomit. I could cite a notable instance, where, vomit perfectly identical with that of yellow fever, lasted two days after eruption.

Another disease, which sometimes bears much resemblance to yellow fever, in its termination, is cholera. This resemblance was observed during the epidemic of cholera which raged at Havana in 1852. At this time it was not rare to find fever patients seized with cholera *et vice versa*; but it was remarkable, that when one of the diseases disappeared, the other continued its progress.

One important distinction to establish between yellow fever and bilious remittent fever is, that the former exists on the borders of the sea, on low and marshy lands. It is never found on the summit of mountains, nor in the interior distant from the coast. Bilious remittent fever on the contrary, shows itself everywhere with the same force. Yellow fever has a regular predilection for a certain period of the year—the season of greatest heat. Bilious remittent fever has no special season. It appears when least expected, complicates the progress and determines the typhoidal period of diseases. If it is true, that these two maladies can present themselves at the same time, one attacking strangers and the other the acclimated and natives of the country, it is not less true, that the same cause should not be ascribed to each, because if this were true, they should both occur in the same places with the same frequency. The intensity of attack differs in the two maladies, especially when yellow fever prevails, in epidemic form. If we proceed to an analysis of symptoms, we see that in yellow fever, the alteration of the organs and of their functions is more profound, and that disorganization commences much sooner after the invasion. The blood is always more or less decomposed in yellow fever, and, from the commencement, presents its own peculiar alterations, whilst the alterations of this liquid in bilious fever are manifested only in the typhoid period. The physical symptoms of decomposition are more constant in yellow fever. The vomiting of blood and hemorrhages are much more common than in bilious remittent fever, and if we have observed in the latter, black vomit, like that of yellow fever, its composition is different, because it is formed by bile stagnant in the stomach and decomposed by gastric acid.

The symptoms furnished by the urine also differs in those two fevers; and if it is true, that albumen is present in both, it is easily determined by nitric acid in the start of yellow fever, and is then a pathognomonic symptom; whilst in bilious fever, I have never discovered albumen until the typhoid condition was pronounced, and even in this case, this indication is very inconstant.

Finally, if we look to the seat of the disease, we see that yellow fever always commences with a shock more or less violent to the nervous system. The great sympathetic nerve appears to be first assailed, and it is from this great centre, the disease radiates by the solar plexus and the ganglions which unite it with the other organs; whilst in bilious remittent fever, the liver is most often the only organ to suffer. If we pass on to the cadaveric lesions shown in autopsies, we find the ganglions forming the solar and cœliac plexus always more or less profoundly altered in yellow fever. This lesion does not occur in bilious fever.

The material cause of yellow fever is miasmatic. It can be transported to a distance without losing its toxic principle, and be prepared to inflict its ravages upon those exposed to its influence. This then is a morbid principle *sui generis*, eminently contagious. The cause of bilious remittent fever does not exhibit this characteristic.

*Prognosis.*—The prognosis of yellow fever depends much upon the time when the patient is seen, and the circumstances by which he is surrounded. I have stated, speaking of the diagnosis, how often it is difficult to decide with certainty in the commencement of the disease; but it may be guaranteed, that of a hundred patients with the symptoms above described, not more than five will be lost, if the treatment is intelligently directed. The average of mortality increases in proportion to the progress of the disease. So it may be apprehended, that twenty to thirty in a hundred will be lost in the second, and he may esteem himself fortunate, who loses only three-fourths in the third period.

The purer the air, the more the chances of cure. Whites are oftener attacked than the Chinese. Blacks have the privilege of immunity. Temperaments sanguine and robust are more exposed than weak temperaments, men more than women, the latter more than children. Pregnancy exercises little influence, except in cases of abortion.

In saying, that the certainty of the prognosis often depended on atmospheric conditions, I have desired especially to speak of electrical influence. So, it is not rare to see a patient nearly entering upon convalescence die suddenly in consequence of a storm. This atmospheric influence makes itself felt even on animal substances ! Fresh meat is all at once decomposed ; fish scarcely taken from the water are tainted in a few instants ; milk is turned with astonishing rapidity. Is it extraordinary, that an agent endowed with such deleterious powers, can exercise this fatal influence over a subject enfeebled by a disease, which assails especially the fluids most indispensable to life ?

In dry and warm weather, with wind from the south, there is a predisposition to inflammatory affections, going into the continued type of yellow fever, in the cerebral form. Individuals of sanguine temperament, will, under these circumstances, be more exposed than those of the lymphatic temperament, and the latter, in their turn, be more exposed in a rainy season with a humid atmosphere.

The intermittent is the most favorable type : after this the remittent type : the continued type is always the gravest.

When the disease commences with chills, followed by heat, and later by abundant sweats, there will be remission, and it will not be grave, at least, if in the second access, the circumstances do not change. When the sweat is not accompanied by remission of the other symptoms, especially of the headache, the disease will be grave if the pulse continues full and frequent.

If, from the introduction of the disease, heat appears without being preceded by chills, but followed by sweat, it will have a remission, and soon after a reaction which should not be neglected. If the heat is not followed by sweat, if the skin remains hot, and the pulse full and frequent, the disease will be hard to combat.

In the absence of sweat, if the headache persists, despite the diminution of heat and the flagging of the pulse, the second access is not far distant, and will be very grave.

When cephalalgia is violent and continued, the skin dry, the pulse full, hard, and frequent, the headache does not yield, and the skin does not become humid, there will be a very serious case to deal with, especially if the individual is of sanguine temperament. If the skin becomes moist, if it presents partial sweat,

if the pulse diminishes in frequency, but remains full, the case will be protracted.

When with cephalalgia and dry skin, it is ushered in with vomiting and jaundice the issue will be fatal.

When the cephalalgia disappears suddenly, the remission is deceptive, if the stomach is painful, and the throbbing of the celiac trunk can be observed.

When the symptoms continue in all their force, and do not yield to any treatment, the disease will be very acute, and will not last three days.

When in the beginning there is vomiting, epigastric pain, with throbbing of the celiac trunk, death is certain, if jaundice makes its appearance.

When the general symptoms are not very intense, the disease will last from five to seven days, even with the continued type. When the symptoms are acute, the temperament sanguine, the weather dry and warm, the disease will last (especially in summer) from forty to seventy-two hours. When with jaundice, the urine is of the color of decoction of rhubarb, when there is no pain in the stomach, or it is scarcely perceptible, the case will terminate favorably.

When the fever has lasted three days without well defined remission, and without jaundice and epigastric pain, remission or intermission may be expected at this period.

In fever of the continued type, diminution of the symptoms, and changes, are dated on the third, fifth, and seventh day, at least, when the disease is not acute in its progress.

Remission generally occurs twice in twenty-four hours. If it happens suddenly with vomiting, the patient will be in great danger, especially if the pulse becomes small and irregular, with cephalalgia and dryness of the skin. The danger will be still greater, if jaundice appears before the third day, with epigastric pain, throbbing of the celiac trunk and constipation.

Vomiting in the invasion of the disease is not to be feared, if it ceases, as soon as the stomach is freed of its contents. But if the vomiting continues, and its exertions are considerable, without relief to the patient, the disease will be serious, especially, if added to this there is precordial suffering and throbbing of the celiac

trunk. Clear vomit, with gray or brown flakes, leaving a burning sensation in the throat, is the precursor of veritable vomito.

If the intermission manifesting itself in the invasion, is allowed to pass to the second access, the patient will eject black vomit on the third day, and die in convulsions. These symptoms, rarely observed in summer, occur most frequently in September and October, or during the winter with warm days and cold nights. In the intermittent type the cephalalgia is always supraorbital.

The sudden pains which occur towards the conclusion of the disease, at that time even when the patient is believed to be convalescing, are of very bad augury. They announce a spontaneous gangrene, which carries off the patient in less than forty-eight hours.\*

Inflammation of the parotid glands, although a symptom grave enough, in the advanced stage of the disease, still allows some hope; but the convalescence will be long.

Gangrene of the skin, especially that of the scrotum, requires the greatest care. It is one of the most unfavorable symptoms.

Hiccough is a very grave symptom, when it occurs towards the termination of the disease.

The sooner hemorrhages occur in the introduction, the less they are to be feared; but they become a very grave complication, when they are abundant.

Epistaxis, coincident with a remission of symptoms, of the pulse, and of heat, may be considered critical. Buccal hemorrhage is not a bad symptom, if exclusively local, but general hemorrhage shows great gravity. Hematemesis, ordinarily very grave, allows some hope, if the blood is not corrupt, and it does not degenerate into black vomit.

Hematuria on the fifth or sixth day, should be considered critical, if the patient is not enfeebled. Anal hemorrhage in the last period leaves little hope of cure. Metrorrhagia is a good symptom, if manifested in the introduction and ceases in the second period; but in the third period, it is most frequently mortal.

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\*The most curious case, I have seen of this, was a Spanish sailor, about to leave the hospital, was seized next day, after his breakfast, with such intense pain in the left thigh, that he uttered the most distressing cries. Nothing could assuage his sufferings, and he died in twenty-four hours. On inspection of the dead body, the thigh was black, and the muscles incised by the scalpel, presented a black and fetid mass. In the epidemic of 1862, I observed two like cases.

*Nature of the Disease.*—Yellow fever or vomito is the result of a miasmatic poison, *sui generis*, which acts first on the great sympathetic nerve, and on the abdominal and ganglionic net-work. The organs, in relation with this nervous apparatus, are more or less altered in their functions; the blood itself is modified in its principal constituents. Examined carefully, it presents the following characteristics: With patients cared for in the first period, it is red and coagulates more readily as the type is continued and the condition is more acute. The quantity of fibrine and of albumen it contains, is considerably augmented. Scarcely passed from the vein; it coagulates in the vessel, forming a compact mass, adhering on the edges and offering great resistance to tearing. With the same individuals, twelve hours after, in ordinary cases, the blood then of a mahogany color, has already become more liquid and coagulates less easily. With some patients it remains two entire hours without coagulating, the serum is yellowish, and the clot is easily torn. In the second period of the disease, the blood is a deep brown, almost black, still more liquid; the coagulum slowly formed, has the consistence of jelly: the serum is yellow or yellowish, and like sanies.

In the third period, the blood is very fluid, and completely black.

Upon the whole, in the course of the disease, the fibrine diminishes to the advantage of the albumen, which is found in very large quantities in the urine.

The blood, failing to receive the oxygen necessary to its coloration, passes insensibly from red to black.

Persistence in cephalalgia, as also in rachialgia, even in the course of the second period, are not indications of inflammation, but of a nervous affection of the mass itself of the encephalon and of the spine. So, they often yield to belladonna and nux vomica, while they always resist antiphlogistic treatment.

The stomach and the duodenum show during the disease, an abnormal secretion of gastric and pancreatic juices. The liver secretes bile, which is ejected in vomiting or passes into the circulation, and produces jaundice and other dependent symptoms. The spleen is augmented in size, and becomes filled with a black, thick blood. The kidneys are affected, and secrete enormous quantities of albumen. All the organs, so profoundly affected in the course of the disease, are in direct relation with the abdominal ganglionic sys-



tem, and with the solar plexus, which examination of the dead body has shown to be gravely altered.

It may be admitted then, that the solar plexus is the principal seat of the disease called yellow fever. Atmospheric miasms, directly absorbed, by respiration, remain in a latent state until a cause often insignificant, as a chill or an indigestion, disturbing the normal equilibrium, generates the disease, and provokes the first period. When skillful attendance is obtained in time, this point is not passed, and yellow fever is arrested in its evolution; but when the evil is not arrested, the organs we have indicated are attacked. They present the symptoms we have described, as belonging to the second and third period, and so contribute to the complete disorganization of the blood, the essential agent of life, which examination of the dead body shows us, is altered in composition.

In front of the aorta and the supports of the diaphragm, around the celiac trunk, and above the pancreas, there are a great number of ganglions in communication with the great sympathetic nerve. These ganglions send out in different directions the nervous threads which form the solar plexus, the epigastric plexus, which is limited on the right and left by the supra-renal capsules. The solar ganglions, which are extremely variable in form, and give birth to the semi-lunar ganglions, situated in front of the supports of the diaphragm, in part over the aorta, inside of and above the supra-renal capsules, communicate with the great sympathetic nerve. The ganglion on the right side, receives a part of the right pneumogastric nerve; the left ganglion is in part masked by the pancreas, and both receive the threads, which are distributed to the liver, pancreas, stomach and diaphragm. These organs constantly exhibit alterations in yellow fever, a circumstance which explains the beating of the celiac trunk, and its intensity. It tells us why the epigastric pain is the last to disappear. Anastomoses of the nervous threads, proceeding from the solar plexus, explain the violent cephalalgia, the hiccough, the pain in the loins the dyspnoea from paralysis of the diaphragm, and all the other symptoms; because there is no one of them which alone, could be explained by the direct relation of the organ affected to the ramifications of the solar plexus and of the great sympathetic nerve.

The cause of yellow fever is purely miasmatic, and the air is its

vehicle. Always, where an atmosphere charged with miasm is absorbed, under conditions favorable to its development, yellow fever will appear. The circumstances contributing to the formation of putrid miasms are the mixture of fresh and sea-water containing animalculæ the detritus of vegetation, the evaporation of this mixture, great heat, humidity, and atmospheric electricity. Miasms once formed, may remain latent and innocuous during a period more or less protracted, until a cause, sometimes trifling, sets them in action.

If by contagion is understood the transmission of disease by contact, yellow fever, in the true acceptation of the term, cannot be called contagious; but if by the word contagion, is understood the transmission of disease by the absorption of a miasm, the subject attacked exhaling putrid miasms, these may be absorbed by a healthy subject, and in this case yellow fever is positively contagious. Anti-contagionists call this *infection*.

For the development of yellow fever, there must be a union of circumstances, which we will review. First elevation of temperature, great heat; not that yellow fever once developed ought necessarily to cease when the temperature falls. I have often seen the epidemic last during the whole winter, and continue to the month of April. But it is true, that yellow fever does not develop itself suddenly in epidemic form in a low temperature. For its generation, *ab initio*, heat is essential, and then it rages, as long as there are subjects fit to be assailed.

Most frequently, the epidemic commences at Havana towards the month of June, and ends in the month of November, but it always exists there in sporadic form, even in winter, especially, if after a great rain, there follows strong heat.

In winter, sporadic cases are much more common in the city than in the harbor, on board men-of-war, and on board private and commercial vessels. This grows out of the crowding of individuals. The greatest exposure is on shallow water and on the sea coast. At a certain height above the level of the sea, invasion is not to be feared, because miasma formed by animalculæ and vegetable detritus remain from their weight on the level of the earth, and cannot infect the elevated strata of the atmosphere.

[To be continued.]

## CORRESPONDENCE.

### OUR PARIS LETTER.

*Absinth and Absinth Drinkers in France; Hypodermic Injection of Brandy; Nature of Rattlesnake Poison by M. Lacerda; A Snake Story; Dedication of the Practical School of Medicine; Renewed Investigation into the Etiology of Diphtheria; Death of Professor Tardieu.*

11 RUE NEUVE DES CAPUCINES,

PARIS, January 20th, 1879.

*To the Editors of the North Carolina Medical Journal:*

GENTLEMEN:—The appetite for absinth seems to be on the increase in Paris. This liquor is procured by the distillation of alcohol, with worm-wood, *absinthum vulgare*, either pure or mixed with other herbs, such as anise, angelica, fennel, majoram, &c.; and experience demonstrates that it is far more injurious to the human system, when taken habitually, than the alcohol of brandy or of wine. M. Magnan in a series of experiments on inferior animals has recently shown that it acts with great violence upon the nerve-centres and eventually disorganizes them. A few drops injected into the veins of a dog produces immediately the most violent convulsions, while the same quantity of alcohol similarly administered is comparatively innoxious. This experiment explains the tendency which is manifested among the drinkers of absinth to the development of epileptic convulsions, as well as the delirium which so much more readily supervenes in its consumers than in those who take alcohol in other forms. The action of this liquor is, at first, much more energetic, and satisfactory, than that of either wine or brandy. The appetite improves, the bodily strength augments, the virile power is sustained, and the valetudinarian fancies even that he has found the "fountain of youth." Just so soon, however, as the habit has been acquired, the dream vanishes, and he realizes that he has dallied with one of the surest and most deadly of poisons. And, yet, heedless of the warnings which the Morgue and the mad-house daily furnish, the fast men of this gay metropolis eagerly court the momentary spur which absinth gives to their waning passions and jaded powers, only to realize a still

more premature and profound decadence alike of mind and body. Fortunately, this pernicious habit is almost exclusively confined to certain classes in the larger cities, while the great mass of the French people limit themselves to the lighter wines which their country so abundantly produces.

*Ad propos* of the injection of alcohol, I must take this occasion to claim priority in its subcutaneous introduction as a remedial agent. While practicing medicine in the city of Baltimore during the year 1867, I was called to a woman who was in a state of profound collapse; and, as she was unable to swallow, I called for brandy, and unhesitatingly injected hypodermically about two drachms of it just over the apex of the heart—with the result of promptly restoring the functions of that organ and of saving the life of the patient. An account of this case was published immediately afterwards in the *Baltimore Medical Bulletin*—as many of its readers will remember; while in sundry journals since then I have alluded to the circumstance, and made the same claim to precedence as that which is now asserted.

Within the last few weeks I have had a case in my practice here in which the subcutaneous injection of brandy undoubtedly prevented a fatal issue. Having had occasion to use the forceps for the removal of a child that had unfortunately died *in utero*, under circumstances which precluded the use of chloroform and necessitated the loss of a considerable amount of blood, I had no sooner secured a proper contraction of the womb than the woman sank into a state of collapse so profound that I could scarcely determine whether she was really dead or alive. There was no pulsation in the radial artery, the heart seemed motionless, the respiration ceased, the extremities became as cold as ice, the jaws were absolutely rigid, and the face assumed the very aspect of death. Instantly lowering her head, I injected two drachms of pure brandy over the apex of the heart, and resorted to artificial respiration, while the nurse under my orders made a liberal use of warmth and revulsives. In response to these means there came a slight flutter about the heart and a single feeble sigh, and then a lapse to the same awful state of silence and inaction. Repeating the injection of brandy and persisting in the other measures, I succeeded after some moments in securing a somewhat more decided movement of the heart and a rather stronger

respiratory effort, followed by another speedy return to the death-like condition which I have already described. And so, with alternations of resuscitation and relapse, amid gleams of hope and intervals of despair. I labored on for more than two hours before the slightest continuity in the cardiac and pulmonary functions was established, and it was only after the lapse of a much longer period that a sufficient amount of reaction developed itself to enable me to decide whether death or life was to be the issue of the struggle. Eventually, however, success crowned my efforts; the state of collapse passed away, and, after a long and weary subsequent illness, the patient lives to unite with me in blessing the days on which brandy and the hypodermic syringe were invented; for they restored her to life and relieved me from one of the most painful and trying positions of my whole professional career.

M. de Quartrefages presented to the Academy of Sciences at its last sitting, a note from M. Lacerda relative to some researches which he has been making into the action of the venom of the rattlesnake. His investigations show that the poisonous matter in question contains what is called figured ferments, the analogy of which with bacterides is very striking. From a young and vigorous crotalus, subjected to the action of chloroform, he obtained a drop of the venom on a chemically clear piece of glass, and at once placed it under the microscope. Almost instantly he observed the formation of a filamentous pulp in an arborescent disposition. Gradually the thickened filament dissolved and disappeared, having pushed out spores which swelled and enlarged visibly, while each spore sent out a minute tube which lengthened rapidly. After a short period the latter, i. e., the minute tube, separated from the first spore, and formed another nucleus for reproducing the deadly contamination of the original pulp. In the examination of the blood of animals killed by the bite of these snakes, M. Lacerda noticed that the red globules presented primarily some small brilliant points on their surface which spread with great rapidity and that ultimately the globules melted one into the other, forming a kind of amorphous paste that could not circulate in the veins. Other animals into which this altered blood was injected, expired in a few hours, presenting all the symptoms of those originally bitten, and showing precisely the same pathological changes.

After much observation, he concludes that the best remedy, because physiologically antidotal to the poison infected by these serpents, is *brandy introduced under the skin* or administered freely by the mouth. If his views in regard to the nature of the poison are correct, it would not seem inappropriate to introduce either carbolic acid or salicylic acid into the system, contemporaneously. It should not be forgotten, however, that the experiments conducted under the sanction of the British Government in India and Australia, seem to demonstrate the superior properties of ammonia in this regard, injected either subcutaneously or directly into a vein.

Please excuse me for telling a "snake story" in this connection. My old friend Dr. H., who practised in Gatesville some years since, was quite remarkable for two things, his passion for snakes and his physical ponderosity. It so happened that he occupied an office some hundred yards distant from the hotel at which he took his meals, and kept there as his companions several rattlesnakes, securely fastened up, as he supposed, in a box with a glass cover. One night at a late hour when the inhabitants of that virtuous village were all sound asleep, the doctor was awakened by the noise of a great battle among his protégés, followed by the breaking of the glass door covering their cage, and, then, the "sounding of their rattles" as they went prowling in the darkness around his room. My friend, though naturally a brave man, was nearly paralyzed with terror. Each moment expecting that the snakes might seek an asylum in his bed, and still fearing to leave it, he found himself in a dilemma the exigencies of which nearly drove him distracted. Finally, remembering that his bed-sted was a "high poster," he mustered courage enough to make a desperate spring for the nearest post and with the agility of a far leaner man climbed to the top of it where, *en chemise* and shouting with cold and consternation—in the language of the old darkey who eventually rescued him—"he roosted till day-break, hallooing *murder* and *fire* and *such-like*, loud enough to have skeared to death all the snakes in Gates county." From that time forward the doctor's passion for natural history took another and less hazardous turn, and the word "snake" meant "fight" in his vocabulary.

The ceremony of laying the foundation stone of the Practical School of Medicine took place a short time since. About four

hundred persons, chiefly internes of hospital and medical students were present, and the occasion was one of much congratulation and rejoicing.

M. Vulpian, Dean of the Faculty, made an address in which he referred to the fact, that, although the late Emperor had proposed to build the new school it had been left to a Republican Minister to realize the plan. M. Bardoux, Minister of Public Instruction, followed in quite a lengthy oration, the gist of which was an acknowledgement of the honor done him to take so prominent a part in connection with an institution which was one of the glories of France, and whose professors had done so much alike for science and for humanity, through so long a series of years. He referred in glowing terms to the ability and reputation possessed by its present corps of teachers, who, he believed, to be second to none in any country, and whose professional record would prove a source of perpetual inspiration to those who are to come after them. He, also, referred to the admirable arrangements evidenced by the plans of the new structure, and paid a graceful compliment to the architect who had devised them. There can be no doubt that this new school will greatly increase the facilities for instruction already so abundantly possessed by this wonderful city; and there is no denying the fact that the present Minister of Public Instruction is not only an officer of extraordinary capacity, but, that, under his fostering care, medical teaching has received a new impulse and an especial stimulation.

In nothing, perhaps, has M. Bardoux shown more discretion and good taste than in refusing to exercise the right vested in him to fill the two chairs recently created by the Chamber of Deputies and in calling upon the faculty to make the choice. As a result of this courteous and statesman-like concession upon the part of the Honorable Minister, M. Parrot, takes the chair of Medical History and M. Panas that of Clinical Ophthalmology, with the sanction of their colleagues, the approval of the profession, and a sentiment upon the part of the community that qualification, and not partizanship, has decided the matter.

In the section of Pharmacy, the Academy of Medicine at its last sitting, elevated to membership M. Burgoing, by thirty-nine votes in opposition to thirty-four given to M. Meun. At the same time,

M. Richef, was chosen President for the year, while M. Roger was elected Vice-President and M. Bergeron, Secretary. In the Society of Surgery, which has for the last twelve months been so ably presided over by M. Guyon, an election for officers was held at its last meeting in December, with the following result: President, M. Tarnier; Vice-President, M. Tillaux; and Secretary, M. Launelongue.

Since the death of the unfortunate Princess Alice, the attention of the profession has been especially directed to the subject of diphtheria. The medical journals of England and of this country have been filled with speculations as regards its etiology, and with suggestions for its treatment. Mr. Power, of London, after a very critical investigation of an epidemic of diphtheria which came under his observation, believed that he traced the disease to the consumption of impure milk. He proves beyond question that the epidemic had a distribution corresponding to the distribution of milk from two sources, and that both herds of cows belonged to the same owner. According to his observation no external conditions could be found to account for this mortific potency of the milk from the two localities indicated, and he concludes that it was altered in character and rendered poisonous in this sense, by some diseased condition of the animals themselves. As this diseased condition is one which does not materially affect the general health of the cow, he inclines to the belief that a certain affection of the udder, which is known by the common name of "garget" has relations with human diphtheria. In seeming confirmation of this hypothesis, the statement was made to the Pathological Society of London, that when diphtheria broke out in the Princess Mary's Home, at Woking, this identical disease, "garget" existed among the cows on the farm which exclusively supplied that institution with milk. This whole matter is to be investigated by a committee composed of Drs. Buchanan, Sanderson, Greenfield, and Copeland, and until their report is made, no definite opinion can be formed in relation to it. Would it not be well for some of our physicians to devote themselves to this new and important field of inquiry, and to publish to the world such information as they may gather in it?

As was stated in a previous letter, the general judgment of the French physicians is most favorable to the chlorate of potash as a



remedial agent in this disease, and such is the testimony of my own observation and experience—especially when it is judiciously administered and supplemented by a sustaining regimen. M. Beau-poil has just published in the *Journal of Medicine and Surgery*, an earnest protest against *cauterization* in the treatment of diphtheria. He makes the following points :

1st. Caustics and especially caustics in a liquid form do not limit their destructive action to the point of disease, but by destroying the vitality of the subjacent tissue, facilitate the extension of the false membrane and the inflammatory engorgement.

2nd. Cauterization is the special agency by means of which the propagation of the diseased action to the glands of the pharynx, &c., &c., is effected.

3d. Cauterization of the pharyngeal mucous membrane, especially when the nitrate of silver is employed, promotes the development of diphtheritic paralysis.

4th. The only reliable topical applications are simple astringents and disinfectants, but they should not be relied upon to the neglect of tonics, wine, alcohol, liquid food and preparations of cubebs, &c.

Although these conclusions are somewhat too dogmatically stated, there is undoubtedly much of truth and good sense embodied in them.

The profession of France has just sustained an almost irreparable loss in the death of Professor Tardieu, whose connection with medical jurisprudence has so long added lustre to that special department of science. This great man died on the 12th inst., from an inflammation of the lungs, which carried him off very suddenly and at the comparatively early age of sixty-two years—much to the regret of multitudes of personal friends and the whole world of science. While the task of giving an adequate notice of his distinguished career must be deferred until my next letter, I will only say in this connection, that since the death of Claude-Bernard, the demise of no professional man has caused a more profound sensation throughout this entire community. His funeral took place from the Madeleine, on Wednesday last, and was a very imposing ceremony, having been attended by the representatives of all the leading scientific associations in Paris.

Since I last communicated with the JOURNAL, I have had the

pleasure of seeing here the distinguished Virginian who was so well known during the war as the "Chief Surgeon of Stonewall Jackson's Division." To the sojourner in a land of strangers there are few things so agreeable as to meet with one that he has known even casually at home; while the pleasure of the meeting is intensified beyond expression when the comer is identified with the most cherished memories of other days and chances to be at once a valued friend and a former comrade. You can, therefore, understand with what pleasure I welcomed Dr. Hunter McGuire to Paris, and "how the old time came over me" when, in the peculiar accents of the people I love so well, he talked to one of native land and mutual friends and all the stirring incidents of the times which so tried the souls of Southern men and bound them together by ties such as they alone can comprehend and nothing but death itself can sever. Though seeking repose abroad from the labors incident to his multitudinous engagement at home, his active mind turned from the recreations and attractions of Paris life, to the surgical wards of its leading hospitals, where with the enthusiasm of a student and the penetration of a master, he watched and weighed all that transpired around him. No professional man in the entire South has a more brilliant future before him, and for one, I sincerely hope that he may live long to enjoy its rewards and honors.

Very truly and respectfully yours,

EDWARD WARREN, (Bey) M. D., C. M.

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*Epilepsy* of long standing may be cured by employing a solution of curare, seven grains to seventy-five minims of water, to which is added two drops of hydro-chloric acid. At intervals of about a week, eight drops of this solution are injected hypodermically. Cases of several years standing have been cured after eight or ten injections.—*Medical Press and Circular, St. Louis Courier of Medicine.*

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M. Vergely's memoir establishes: 1. That the existence of heart diseases does not contra-indicate the use of anesthetics. 2. That chloroform is a sedative in this class of cases. 3. That it should be used with discretion.—*Press and Circular.*

## EDITORIAL.

### NORTH CAROLINA MEDICAL JOURNAL.

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M. J. DeRosset, M. D., 46 West 36th St., N. Y. } Editors.  
Thomas F. Wood, M. D., Wilmington, N. C. }

 *Original communications are solicited from all parts of the country, and especially from the medical profession of The Carolinas. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to our JOURNAL, by sending the address to this office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to DeRosset & Wood, P. O. Box 535, Wilmington, N. C.*

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### A LESSON ABOUT DRINKING WATER.

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Shortly after the State Board of Health was organized, the sanitary status of the city of Wilmington was attempted to be learned, and with the help of Dr. A. E. Wright, City Superintendent of Health, statistics were gathered as to the condition of privies and wells and their relations to each other with a view of determining how far the public health, and the health of families, in particular, were affected thereby.

The result of this examination showed that there were 1383 wells, 123 cisterns, and 10 springs. That there was 1 well two feet from the privy, 2 wells four feet from the privy, 33 wells ten feet from the privy, 220 wells from twenty-five to thirty feet, 90 thirty feet, 145 from thirty to forty feet, 127 from forty-five to fifty feet, 423 from fifty to one hundred, and 341 from one hundred to two hundred feet.

Furthermore there are 184 privies with brick vaults, 1,119 with

wooden vaults or boxes, 552 privies on the ground, 110 dwellings without privies, and 20 having sewers or located over the river.

The soil upon which Wilmington is located is nearly as white as that of the sea-beach, and as percolable. The average depths of wells is eighteen feet. Very few wells have a brick curb, and with a few exceptions, none are cemented to keep out the surface water.

We have given enough facts to serve our present purpose, (at any rate we forbear to tell the whole story,) to show how far removed we are from a tolerable sanitary condition.

A gentleman located on Princess street, upon one of the highest sand ridges, in a thickly settled part of the city, lives in a house of one story, and on each side of him are two-story wooden houses. His front yard is adorned with ornamental shrubbery, and a flourishing row of trees. The health of the family (composed of nine or ten persons) is not generally good, although it cannot be said that there has been any typhoidal disease among them. Having his attention called to the matter by sickness, he set about applying first one sanitary remedy and then the other as it occurred to him. The shrubbery in the front yard was thinned out, and the limbs of the trees cut so as to let in more sun-light. Under the house was cleaned out, and access given to fresh air. The ventilation of the house was improved, but the defect was not remedied.

At last after several conversations with his neighbor, the well-water was suspected and we were asked for our opinion. A specimen of water fresh from the well was procured and tightly corked, and sent to Professor A. R. Ledoux, of Chapel Hill. We append his reply :

DEPARTMENT OF AGRICULTURE, NORTH CAROLINA, }  
AGRICULTURAL EXPERIMENT & FERTILIZER CONTROL STATION, }  
AT THE STATE UNIVERSITY.

\* \* \* \* \*

"The well is without doubt most dangerously poisonous. Not only is the water filled with *bacteria*, but there are other living organisms feeding upon the animal matter present, whose movements can be seen by the naked eye.

"There are no unusual inorganic constituents present, but the *organic* matter renders it very unhealthy.

"Comparative tests give the following result :

“If we represent pure water by 1000, the organic impurities in sample bring down its quality to about 100.

Yours sincerely,

A. R. LEDOUX.”

We examined the premises upon which the well is located and find that the uncemented brick privy sink of his neighbor on the east is ten paces from the well.

This well-water has for years been regarded on account of its temperature, as excellent; and in fact so accustomed had the family become to this highly poisonous fluid, hardly deserving the name of water, that they could not detect anything wrong in it.

If this were an isolated instance of dangerous contamination of the water supply, the remedy would be easy enough: but with the statistics condensed at the beginning of this article, we find ourselves at the beginning of a revelation of evils, the remedy of which will save us from epidemic disaster.

This is not the place to go into the particulars of the sanitary condition of the sources of our drinking water, but it must be obvious to every one that with a ready precolable soil, a well dug many feet deeper than the deepest privy sink, the well without a brick cemented curb and in thirty feet of the privy, that contamination in course of time is inevitable. From this lesson about our drinking water, we may work out the problems of our water supply. Indeed, we had better say we *must work* it out, or be prepared for disastrous outbreaks of diphtheria, and typhoidal disease.

It is this and like matters that our State Board of Health has undertaken to elucidate. It is the design of this Board to investigate every town in the State as soon as we have means at our command; it is our hope that with wide-spread information we may be the means of improving the sanitary condition of our towns. Let the cities and towns of the State come to the help of our Board. If the State seals up her treasury against the calls for organized help, let our towns act independently and save themselves at least.

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The Faculty of the Medical College of South Carolina have succeeded after a hard fight in getting entire control of Charleston city hospital. This greatly enlarges the clinical advantages of the students at the College.

## REVIEWS AND BOOK NOTICES.

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REPORTS OF INVESTIGATIONS INTO THE PATHOGENY OF DIPHTHERIA, conducted by EDWARD CURTIS, M. D., and THOMAS E. SATTERTHWAITE, M. D.

The reporters took for their subject "the question which has already attracted so much attention from its supposed solution in Germany, viz: *“what is the nature of the infectious principle of diphtheria and what are the circumstances that determine the infection.”*

Considering it already sufficiently proven that the false membrane of diphtheria is able to communicate the disease, the object of their search was particularly for the infectious principle, in the material. Membranes were searched with special care for bacteria, and this research enables them to say that "so far as regards the presence of bacteria in our diphtheritic membranes, they found abundant evidence of their existence as described by others; but these forms were in no wise different in their optical or chemical behavior from the bacteria found in putrescent but non-diphtheritic membrane."

Inoculation of rabbits with diphtheritic membrane was undertaken, because "if it was proven that such inoculation would produce diphtheria in the inoculated animal, then by varying the conditions, the nature of the poisonous and the determining circumstance of infection might be discovered."

The result of these inoculations enable the reporters to say—"that the disease produced in the rabbit by inoculations of diphtheritic matter, is not only not specifically diphtheritic in character, but not even peculiar to the diphtheritic infection."

The following is the summary of the investigations:

"I. Inoculation of diphtheritic membrane into the muscular tissue of the rabbit produces severe local lesions, and even constitutional disturbance and death. But these effects differ so in their pathology and clinical history from diphtheria in the human subject, that there is no warrant for defining them as diphtheria, or for applying conclusions drawn from observation of this inoculation-disease in the rabbit to the case of diphtheria in man.

"II. Effects exactly similar to the foregoing and of equal

severity can moreover be produced by inoculation of a material not only non-diphtheritic, but non-infectious to the human subject under conditions where the diphtheritic membrane *is* infectious, *i. e.*, when brought into contact with the mucous membrane of the mouth and throat. The material referred to is the pulpy scraping of the surface of the healthy human tongue.

“ III. Effects generally similar to the foregoing, though not of equal intensity, can furthermore be produced by inoculation of a putrescent matter which is not even of immediate animal origin, namely : Cohn’s fluid, allowed to spontaneously decompose. (Cohn’s fluid is simply an aqueous solution of ammoniac tartrate, potassic and calcic phosphates and magnesic sulphate.).

“ IV. The foregoing inoculation effects are not due to simple mechanical irritation, for inoculations of sand produce no effect whatever.

“ V. Thorough filtration of a proven virulent aqueous infusion of diphtheritic membrane or of putrid Cohn’s fluid removes the infectious property of the same. Hence in such diphtheritic infusion the poisonous quality probably inheres in some *particulate* thing, from which it is not separable by the action of cold water.

“ VI. Thorough trituration of proven virulent diphtheritic membrane and tongue-scrapings with a high percentage of salicylic acid fails not only to remove, but even markedly to modify, the intensity of the infectious quality of those substances. Hence, since salicylic acid in even a minute percentage is capable of permanently suspending the vital activity of bacteria, the inference is that the infectious quality of diphtheritic membrane upon the system of the rabbit is not correlated to the vital activity of the bacteria present in such membrane.

“ VII. If, as is not improbable, the noxious principle in diphtheritic membrane which produces in rabbits the effects described, be the same with or even analagous to the principle which produces diphtheria in man by direct infection, then the conclusion of VI, will apply to the infectious quality of such membrane in its relation to the reproduction of diphtheria in the human subject. If this be the case, it follows as an important practical corollary that *there is no theoretical ground for assuming that preventing the bacteria of a diphtheritic patch from making their way through the under-*

*lying mucous membrane will, per se, prevent general diphtheritic infection of the system.*

“VIII. There is no relation between the inoculable virulence of a diphtheritic membrane and the period, within three days, that has elapsed between the detachment of the membrane and the inoculation with the same, nor between inoculable virulence and gross amount of bacteria present in the membrane.

“IX. There is a rough relation between inoculable virulence of diphtheritic membrane and the severity of the original case of diphtheria, so far as that can be estimated by the termination of the case in death or recovery.

“But it must be distinctly understood that these nine propositions are not put forth as *proven*, but merely as the results of our experiments and observation so far as the latter go, stated in abstract form. Before the propositions can be considered proved as truths, a large number of corroborative experiments will have to be ready.”

The second part of the paper gives 40 pages of the narrative of the experiments upon which the report is founded.

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A PRACTICAL MANUAL OF THE DISEASES OF CHILDREN WITH A FORMULARY. By EDWARD ELLIS, M. D. Third Edition. Wm. Wood & Co. Great Jones Street. New York. 1879. Pp. 213. Svo.

This is the second installment of the monthly issue of Wood's Library of Standard Authors. In its mechanical appearance it is an improvement on “Hilton on Rest and Pain,” &c.

“How to detect disease is a thoroughly worked problem, but how to cure disease is one that has received too little attention from scientific physicians,” seems to be adopted by the author as a good working motto.

The first chapter is devoted to general observations on Management and Diet, and is written with practical good sense. For instance: “The essential and vital difference between cow's milk and woman's milk consists, not so much in the relative quantities of this or that solid constituent, as in the fact that the casein of woman's milk always coagulates in small floccular pieces—broken flakes—while cow's milk (and other milks to a less degree) coagulates into hard, gelatinous, indigestible lumps. It is to render the



cow's milk more digestible than the addition of water, and especially of lime-water, is recommended by physicians.

The chapter on General Diseases is more satisfactory than the one which follows on Skin Diseases. But who ever saw a satisfactory chapter on skin diseases? Diagnosis cannot be taught by written descriptions, and cures cannot be effected without diagnosis, and so the general practitioner gropes a long time before he gains an insight into this difficult branch of medicine. Therefore, we must only commend the short space consumed in disposing of the subject.

The fourth chapter is devoted to a short description of congenital affections, and the method of treatment of ophthalmia neonatorum is excellent.

The subject of vaccination is treated from the English standpoint, and is far behind the practice employed in this country by the best physicians. Animal vaccination in America has relieved the medical profession of much of the uncertainty and blunders which were so common only ten years ago, but no mention is made of this great progressive step.

This book will no doubt be largely read, and no part of it will be more highly esteemed than the chapter on General Therapeutical Hints and Formulary. So far we approve most heartily the selections of works to compose the Library of Standard Authors, and advise our readers to subscribe at once.

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DIPHTHERIA, ITS NATURE AND TREATMENT, VARIETIES AND EXPRESSIONS. By MORELL MACKENZIE, M. D. Senior Physician to the Hospital for Diseases of the Throat and Chest, &c. London. Pp. 104. 8vo. Lindsay & Blakiston, 25 S. 6th Street, Philadelphia. 1879. Price 75 cents.

The medical profession is always ready to listen to the teaching of Dr. Morell Mackenzie in all matters within the domain of his specialty. This little work is more satisfactory than many more pretentious ones which have occupied the attention of the profession.

The first chapter gives the Definition and History of the disease, is not so encumbered with useless historical learning as to become tedious, and fairly puts the history in review before the reader. We would have been better pleased to have seen mentioned the histori-

cal researches of Dr. John C. Peters, of New York, as it would have added very much interest to American readers.

The chapter on Etiology is to us the most interesting in the book. On the subject of the conveyance of the poison: "The poison may be conveyed," says our author, through food or water (or other fluid used for drinking purposes), as in the analagous case of typhoid fever. \* \* \* In many of the cases of diphtheria which I have seen during the last few years, the drinking water was found to be contaminated with excrementitious matter."

"As regards direct inoculation with diphtheritic membrane; \* \* \* although in some of these experiments, a false membrane was produced, the septicæmia may have been merely the result of inoculation with decomposing animal matter, and it cannot be considered that the true diphtheria, with its specific manifestations, has yet been artificially produced by inoculation of the lower animals, though certain local phenomena of great interest has been induced.\*

The first chapter the busy practitioner will refer to is the one on treatment. There the whole field of therapeutical agents is surveyed, but there seems to be no new light. Dr. Chapman's alcohol treatment seems not to have reached England, but small doses of brandy and wine are recommended. Two ounces of brandy on four ounces of wine in the twenty-four hours may be prescribed for an adult, and proportionate quantities for a child.

Dr. Mackenzie holds to the identity of croup and diphtheria, and will shake the faith of many a dualist who reads the chapter on Laryng-tracheal diphtheria. This little work is much more to the purpose than the treatise by Oertel, and the many one-sided essays in current literature.

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PHYSIOLOGY: Preliminary course of Lectures by JAMES T. WHITTAKER, M. A., M. D. Illustrated. Cincinnati: Chaney R. Murry, 103 W. Sixth Street. Pp. 288.

Any student who may have the fortune to have as a good foundation in physiology as Dr. Whittaker's book can give him, may feel sure that he is in the right way to a comprehensive grasp of the

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\*See the experiments of Drs. Curtis and Satterthwaite in this number.

complete subject. Students are very prone to neglect the history upon which our modern science of physiology is built, and in doing this they neglect the most charming chapter in the development of human learning.

This "preliminary course" gives an attractive introduction by the lives of Harvey and Haller, and outlining the conservation of force.

The Darwinian theory of "natural selection" seems to be adopted by the author is common with many other physiologists, and although it adds very much to the beauty of some of the observations, the student should be warned that the verdict of "not proven" still stands against it.

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CONCLUSIONS OF THE BOARD OF EXPERTS. Authorized by Congress to investigate the Yellow Fever Epidemic of 1878.

Being in reply to questions of the Committee of the Senate and House of Representatives of the Congress of the United States, upon the subject of the epidemic. Pp. 42. With four *provisional* statistical tables.

We are in receipt of the above report and it seems in all respects to be wisely and prudently made. The first question considers "the origin, cause, and distinctive features of Yellow Fever and Cholera; whether or not they are indigenous to any part of the United States; if not, how they are brought to this country, and the localities from which they come, and if found to be indigenous and also imported, in what proportion and to what extent has their presence in the United States been owing to importation."

The second question "The season of the year, and atmospheric conditions, when and in which they are propagated."

The answers are given in numbered replies from 1 to 90. That yellow fever is a specific disease, and is produced by introducing into the human organism a specific poison, has not been isolated, or made evident to the senses although they believe it to be *particulate*. That it is not only particulate, but that it is also organic, and endowed with the powers of growth and reproduction. That it is not a marsh-malarial disease, and, that malarial influences do not contribute towards the dissemination and mortality of yellow fever to any greater extent, than to that of other epidemic diseases. The

concurrence of conditions favorable to the evolution of yellow fever poison, seems to be necessary to the evolution of yellow fever epidemics. It is as yet an unknown factor. That yellow fever is a disease of singular local attachments. That in the dissemination of yellow fever atmospheric air is the usual medium through which the infection is received into the human system. That among the several races of men the white race manifests the greatest susceptibility to yellow fever, the negroes least, and the mulattoes an intermediate position.

That the period of incubation varies, but in the large majority of cases does not exceed from two to five days. That one attack affords in a great degree protection against subsequent invasion. That yellow fever is a disease of warm climates, and is not able to withstand frost. That there is good reason to believe that it is destroyed by intense heat. That there is reason to believe that yellow fever can be destroyed by chemical disinfectants. That as regards the geographical distribution of the disease, it was not known in Europe until after the discovery of America, and since its introduction into the West Indies these Islands seem to have constituted the favorite habitat of the disease, and the fever has been carried from there at different times into Europe. In all countries outside of the West Indies is an exotic disease. That for seventy-seven out of eighty-eight years it has visited some part of the United States. That in this country it has never acquired permanent domicil, and every epidemic has been traced with a high degree of probability to new importation.

That it has always occurred in some seaport before making its appearance in the interior. That they know of no place in this country where it has occurred indigenously. That while in some instances yellow fever has appeared to have its origin in sea-port towns, it has always happened that there was yellow fever in some foreign port, between which and the American port there has been at the time communication. That the specific poison of the disease may live through a winter when hidden away from the cold in sheltered places. In its migration across the seas it has followed the lines of human travels. It is transmitted across the seas in vessels, and through the interior of the country by steamboats, barges, railroad cars, wagons, carriages, &c., &c. That the most

frequent agency in the dissemination of yellow fever, from place to place is found in yellow fever patients: to what extent clothing and baggage is responsible for it, is not known.

That infected vessels and boats are sources of great danger, since it is found that the yellow fever infection clings to them with wonderful pertinacity in spite of all the methods of ventilation, disinfection, and purification that have up to this time been called into requisition. Formites of various kinds, particularly clothing, bedding, &c., that have been used by yellow fever patients may serve as vehicles of infection, and outbreaks have been traced to these sources. Ordinary merchandise may be infected by storage in an infected house.

Third Question.—“The means by which the introduction of yellow fever and cholera into this country may be prevented.”

The rules for the sanitary management of ships have not prevented them from being the carriers of pestilence. An improvement might be made in this respect, by ventilating portions of vessels which are now shut chambers. That it is advisable, 1st. That ships should be inspected before sailing from infected ports, and (2) their inspection and detention on arrival.

A scheme of quarantine suggested is as follows: Medical officers of health should be stationed at every foreign port, who should acquaint themselves with the diseases usual to the posts where they are assigned. They should forward warning reports to Washington. They should acquaint themselves with the medical history of individual vessels. The equipment of these foreign agents should comprise residence, hospital and necessary attendants, &c. The medical officers of the Home Service should perform all duties incumbent upon quarantine officers.

The Prevention of the Spread of Yellow Fever and Cholera includes local sanitation, isolation of the sick, segregation or dispersion of the well, disinfection or destruction of the poisons: measures of personal prevention: inland quarantines.

While yellow fever belongs to a class of diseases which is not controlled by local conditions, general neglect of hygienic rules exercise an unfavorable influence as in other diseases. Insanitary surroundings lessen vital power and therefore diminish resistance against yellow fever. It therefore follows that strict perfect local sanitary conditions should be attempted.

The evils of removing garbage after yellow fever has appeared, are not believed to be as prejudicial to either the sick or the well as the tolerance of such accumulations. Malarial poison may coincide with yellow fever and increase the danger, therefore large surfaces of soil should not be exposed to the sun. There is testimony to show that the effluvium from dead bodies may be associated with infection, it is therefore recommended that the bodies of persons dead of yellow fever should be promptly buried.

Isolation of persons sick with yellow fever is an efficient method of arresting its spread. Visits made by friends carried the disease in the epidemic of 1878. All visits should be prohibited.

Segregation or dispersion of the population liable to attack from yellow fever and cholera is a valuable means of arresting their spread. The establishment of camps of refuge outside of towns in which yellow fever has been epidemic has proven to be a wise sanitary measure.

Disinfection by chemical agents has not succeeded. Researches in this direction should be encouraged.

Personal prophylaxis should include the prevention of excesses in eating, drinking, or exposure of any kind. No drugs are known which can be relied upon as preventives of yellow fever.

Inland quarantine instituted during the late epidemic exercised a marked influence in arresting the spread of yellow fever, but on the other hand, its enforcement inflicted privations and cruel lack of necessary attention upon the sick. If it is to be resorted to in the future it should be made to conform to some plan which shall deprive it of harsh and unreasonable features. In the present state of popular alarm and excitement, it is greatly to be feared that outbreaks of yellow fever or of cholera, would lead to a form of quarantine the most to be deprecated of all others, which is the compulsory confinement both of the sick and the well within the affected towns. Such an occurrence would be an ineffaceable blotch upon the civilization and philanthropy of the country and of the age.

The answer to the next question gives the estimated number of deaths, and diminution of national wealth. The summary of the "provisional table" gives 74,265 cases reported from 132 places, and total number of deaths reported 15,534.

FIFTY YEARS AGO: An address to the Graduating Class of the Pacific. By HENRY GIBBONS, SR., M. D. Professor of the Principles and Practice of Medicine and Clinical Medicine.

This address is one of those pleasant things, that which some old fashioned medical men are capable of, when they relax the rigor of the professor's habit. It is as much a pleasure to the listeners as to the teacher, to give in easy and graceful narrative the links which connect the present with the past.

Here is a story and a lesson the present generation is not too old to learn from :

“About ten years ago I had a patient suffering with acute pulmonary congestion. He was breathing with great difficulty as he sat up in bed, and unable to make full inspiration. A consulting physician who was called in, advised whisky and quinine, to give a fillip to the heart as he said, so that the heart should be better able to drive the congested blood through the lungs. Although I thought this would only increase the difficulty, I waived my opinion and prescribed the whisky and quinine. In a few hours I was summoned again to the patient, and found him gasping for breath and his face almost livid. My associate was not on hand and I was compelled to take the entire responsibility. Addressing the sufferer, I said to him : ‘My father who has been in his grave twenty years has been whispering in my ear all day—Henry, why don't you bleed that patient?’ I expected an emphatic negative, particularly as he was an Irishman, for of all nationalities an Irishman most dislikes to be bled, except in a certain manner. To my surprise he assented to the proposition ; and in a very short time a copious stream was flowing from his arm. Presently he exclaimed as he drew a deeper breath—‘Why doctor, I can breathe better already!’ And so he continued to breathe more and more freely as the lungs were relieved of their burthen and the circulation through them restored. With my finger on the pulse I awaited the moment of complete relief and then tied up the arm, having taken about twenty-four ounces. He lay down in bed, which he had not been able to do for two days, rested in perfect comfort, had no return of the difficulty, and in four or five days was walking the street. The relation of cause and effect was never more palpable than that of bleeding and cure in this instance. The patient, now a venerable gentleman of three

score and ten, and presenting the appearance of health and vigor often meets me in the street and greets me with the remark.—‘it’s *that* bleeding saved my life.’ Such illustrations of the efficacy of blood-letting will invite olden time doctors a smile, as being common-place and too familiar for recital. In truth there is not in the whole range of therapeutics a fact better established than the remedial power of ven-section in disease, even to the extent in many cases of emergency, of saving life.”

Although the following formula is hard to fill, Dr. Gibbons thinks it should be :

“Were I called on to furnish a formula for the training of a practitioner of medicine, I should require good material to begin with, a proper preliminary education, a year in a retail drug store with a course of lectures on *Materia Medica* and *Chemistry* in the College of Pharmacy ; six months divided between nursing the sick and cooking for them, and then such a curriculum in a medical school as you have just concluded. And then a year or two of country practice, with its hardships and vicissitudes, would throw a ray of comfort over all future corporeal trials incident to his career. In short, the practice of medicine calls for a versatility of power, a greater depth of resources, a wider range of qualifications, than any other occupation among men. A doctor must be a mechanic, a nurse, a cook, a chemist, a pharmacist, an anatomist, a physiologist ; he must have the wisdom of Solomon, the patience of Job, the independence of Diogenes, the philanthropy of Howard.

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Such addresses have always a welcome place in our office.

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*Early Vaccination.*—Dr. Russell, of Glasgow, has recorded an instance of an infant born into a small-pox atmosphere being vaccinated within twenty-four hours after birth. The child was born the day after its father was removed to the hospital with small-pox. The vaccination did well ; the child was not in the least disturbed in general health, and escaped a disease which would almost certainly have proved fatal. When small-pox is in the house or family, *no age must be considered too early* for vaccination, which appears to be as safe and quite as successful directly after birth as it is at a later period.—*Sanitary Record*, Nov. 15th.



## OUR NEW YORK LETTER.\*

*Summary: Wyeth's Method of Treating Potts' Disease: Discussion—Thomas, on "A Novel and Safe Method for Removing Sub-mucous and Interstitial Uterine Fibroids"—Gibney on the Treatment of Sciatica by Strong Galvanic Currents—Is Swill Milk Unwholesome?—Garget as a Cause of Diphtheria—Abortive Treatment of Diphtheria.*

46 WEST THIRTY-SIXTH STREET,

NEW YORK, February 9th, 1879.

Several noteworthy papers have recently been read in the various Societies: I regret, however, that my mention of them must be limited to a mere statement of their outlines. For this, your collating editor will doubtless make full amends by copious extracts from them when they come to him in complete form.

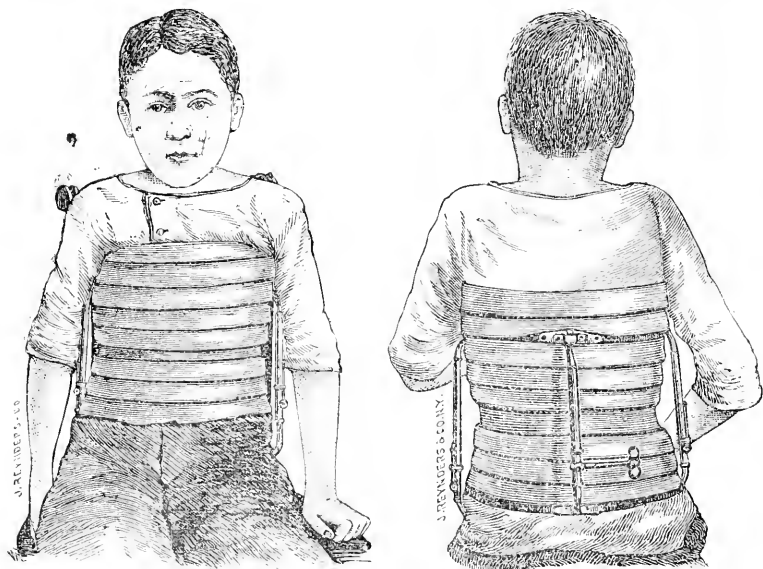
Dr. J. A. Wyeth read before the County Society a description of a new method of treating Potts' disease of the spine, which he claims is superior in every respect to any method that has hitherto been tried.

It is to be regretted that the inventor's experience was limited to a single case, for his principles and devices appear reasonable, and doubtless would have recommended themselves yet more forcibly, had their claims been supported by accounts of their actual application.

The three cardinal principles of Dr. Wyeth's new method are fixation, support and continuous extension of the diseased vertebral column. He admits that the two first conditions are secured by the proper application of Sayre's plaster jacket, Taylor's brace and other approved devices; but he says that none of these affords the extension which, he urges, is such an important element in the cure of the morbid process and the removal of the kyphosis. The apparatus employed is remarkable for its simple construction, and seems to be as easily applied as Sayre's jacket, and somewhat in the same way. It consists first of a plaster of Paris corset in two sections, one encircling the thorax, and the other the lower lumbar and pelvic region. Into each of these are inserted several tin plates,

\*Going to press earlier than usual this letter is in a new position, but none the less interesting and instructive.

carrying staples, or slots, which receive the rod, by which the extension is to be made. These staples, or slots, furnish the points



of resistance, and as the corresponding parts are made to recede from or to approach each other by lengthening or shortening the rods, the two segments of the corsets extend the vertebral column, by virtue of the grasp they respectively have upon the upper and lower parts of the trunk. In this way may be overcome the sagging down or telescoping of the thorax which takes place as the grasp of the corset is loosened by shrinkage of the chest walls and continuous extension is secured by screwing out the rods to greater length. It is evident that extension at the diseased point is possible only when it is located in the lower dorsal or upper lumbar vertebrae, and, in effect, the solitary case which was cited in illustration was one in which the disease was in the dorso-lumbar region. Before and after coming under Dr. Wyeth's care the little boy had been treated by means of Sayre's apparatus and Taylor's brace, but without benefit, when the Wyeth extension was devised and applied. Relief from fatigue and pain followed its application immediately, and in a few months complete cure, which has now continued for nearly a year. The deformity was greatly reduced.

The accompanying cuts, for which I am indebted to Mr. Reynders, convey a good idea of the apparatus. The corsets may be made either of plaster of Paris bandages, or of leather braces—the former, of course, being much less expensive, but equally as effective.

It is to be regretted that Dr. Sayre, the great apostle of the plaster jacket, was not present to participate in the discussion. Dr. Frank H. Hamilton gave a very clear account of the disease, and the various modes of treatment, and spoke of the anatomical difficulties which oppose all efforts to extend the vertebral column, even if it could be shown that any case of spondylitis was benefited by extension. He thought that the essential points in the treatment were support and fixation as far as possible, and any apparatus would be useful, which relieved the spinal muscles of the constant strain to which they are subjected in holding up the spine. A proper brace should also remove the pressure from the bodies of the vertebræ, by throwing it upon the oblique (?) processes and at the same time restrain all movement at the diseased point. He doubted the possibility of removing any deformity that is well marked. In reference to extending the spinal column by taking the points of resistance from the hip below, and the chest walls or axillary borders above, he thought that the anatomical formation render this impossible: for the thorax is a cone tapering upwards, and any corset, or brace, encircling it would tend constantly to slip upwards and afford no extension. As to the axillary borders these were formed by the latissimus dorsi and pectoralis major muscles, upward pressure against which would not produce extension of the spine, because of their points of origin—in case of the latissimus dorsi the lower dorsal and lumbar vertebræ, sacrum, and ilium, and of the pectoralis major the lower ribs. It seems to me that these anatomical objections are not well taken. It is true that the thorax tapers upwards, but this it does only above the sixth rib: below that it tapers downwards slightly, and thus offers means for a *point d'appui* for upward pressure. The latissimus dorsi doubtless tends, when acting as a whole, to draw up the pelvis, but Dr. Hamilton, I think, does not sufficiently consider the origin of this muscle at its upper part. Here its fibres run horizontally outwards to unite with the oblique and vertical fibres proceeding from below. Some distance from its insertion into the bicipital groove the muscle

is twisted upon itself, and the horizontal fibres are placed below the others, thus forming the lower edge of the posterior boundary of the axilla, and would receive the major effect of any upward pressure applied to it. The great pectoral muscle as well as the teres major doubtless likewise offer available points for counter extension.

Other gentlemen, conspicuously Drs. V. P. Gibney, and Leroy Yale participated in the debate, all expressing their belief that Wyeth's appliance deserved to be tested, but that its use would probably be confined to cases in which the caries was located in the lower dorsal or upper lumbar vertebræ.

Much skepticism was expressed in reference to the possibility of removing the deformity of Potts' disease by any apparatus.

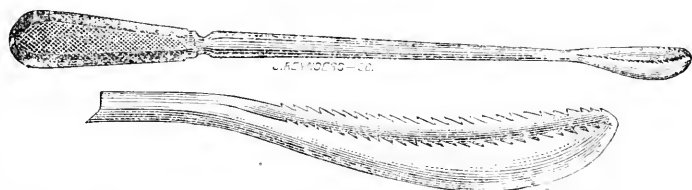
The presentation at the Academy of Medicine, of Dr. T. G. Thomas' paper on a novel and safe method of removing sub-mucous and interstitial fibroids attracted a large number of our gynæcologists. He expressed himself very emphatically to the effect that fibroids are not to be attacked surgically except for some impending danger from them. By this, I suppose he meant when they cause exhaustive hemorrhages, or interfere by their bulk with important vital processes, or threaten by cystic or inflammatory changes to induce septicæmia, or when they seriously complicate labor. It must be remembered that fibroids belong to the class of tumors known as myomata, or, if they contain a notable element of connective tissue, as fibro-myomata, and are entirely benign in their character.

They often disappear after the menopause owing to a loss of the nutrition which the menstrual nixus supplies. Dr. Thomas said that it is an exception to the rule when an adult negro woman is found without a fibroid.

His method for their removal is practically by enucleating, or shelling out the tumor from its bed. An incision, generally crucial, is made at its lowest part extending through the mucous membrane and the muscular tissue proper of the uterus covering it.

These are separated from the fibroid first by the finger, and then a serrated spoon, devised by him, is introduced into the opening thus made, and passed around the tumor in every direction, with a gentle sawing movement. The entire fibroid is thus easily isolated

from all of its connections, and may be removed *en masse*, or piece meal if too large to be delivered by a pair of obstetric forceps or otherwise. There is commonly very little hemorrhage, and it is surprising in how short a space of time the operation may be completed—ten minutes sufficing in some cases to remove a tumor weighing several pounds.



The serrated spoon is shown in the accompanying figure, kindly furnished me by Mr. Reynders.

After the removal of the fibroid the cavity which is left may be washed out with antiseptic solutions, and ergot may be given to secure its obliteration by contraction of the uterus. The histories of six cases thus treated were presented: all were successful, except one, which was not expected to recover when the operation was undertaken.

Before beginning the operation it may be necessary to dilate the os uteri with tents and Barnes' dilators, and it is important to map out accurately the connections of the tumor by means of the flat whalebone sound which Dr. Thomas has also devised. In this connection it may be useful to recall the various methods, medical and surgical, which have from time to time been employed in for the removal of fibroids. First as to general medication to promote their absorption, may be mentioned the administration of astringents, alteratives (iodine and the iodides and bromides) and ergot—this latter given either by the mouth, or injected by the hypodermic syringe into the general cellular tissue or into the tumor itself, after the manner of Hilderbrandt of Königsberg. The danger as mentioned by Emmet, of exciting peritonitis or cellulitis, by the injudicious use of ergot should not be forgotten.

\* Allied to medication is the method of treatment by diet, iron and alkalies. An exclusively meat diet has found some advocates and Rigby has highly extolled the Kreuznach water, and McClintock the preparations of iron. It may be that any mode of treat-

ment which subdues to a marked extent the ovarian influence will tend to promote the absorption of fibroids, and therefore the great agency in this is the advent of the climacteric. Surgically, the treatment has been varied—pressure, electricity, puncture, incision, actual cautery, traction (Emmet) and normal ovariectomy (Batley).

In closing the discussion upon his admirable paper, Dr. Thomas said that with our present resources, embryotomy should never, as in the past, be resorted to in any case of labor rendered difficult by the presence of a fibroid. Now, the tumor ought first to be delivered, in the way described, and parturition be allowed to take its usual course. The presence of labor pains would not complicate, but rather facilitate, the removal of the tumor.

Dr. V. P. Gibney, of the Hospital for the Ruptured and Cripple read an interesting paper before the Academy on the treatment of sciatica by electricity. To premise, he discards wholly the use of the faradic current except in the treatment of rheumatic forms of sciatica. He uses the galvanic current only, and, contrary to accepted doctrine, as strong as the patient will bear. The positive electrode (a sponge) is placed over the lumbar or cervical spines, and the negative (a wire brush or metallic plate) is passed over the region of distribution of the affected nerve. The sitting lasts from ten minutes to an hour, and should be held daily for two or three weeks. A large number of successful cures were narrated with their full clinical histories.

Dr. E. C. Seguin said he would be disposed to attribute the beneficial results (which were very remarkable) to the counter-irritant effects of the strong currents employed, since these must have produced hyperæmia, mild vesication and papular eruption. In his hands sciatica had always proved very intractable. He had always used mild currents.

Dr. A. A. Smith's experience was given in full support of Dr. Gibney's methods, and he cited in a lucid manner the history of several cures obtained by himself with strong galvanic currents.

Dr. George M. Beard gave a technical account of the use of electricity in neuralgia. He discards faradic currents, and uses strong galvanism, but thinks individual peculiarities often indicate the kind to be used. He has not been able to determine satisfactorily that the location of the electrodes, i. e., the direction in which the current is passed, is a matter of importance.

The swill milk question has again come into prominence, owing to the agitation in reference to pleuro-pneumonia which threatens to interfere seriously with the exportation of live stock from this country to Great Britain. It is quite certain that this infectious disease is very wide spread. A large dairy stable, from which no insignificant part of Brooklyn draws its supply of milk, has been discovered on Long Island, in which 900 cows are haltered in the midst of disgusting muck and filth, and fed wholly upon distillery swill which flows through their troughs at a high temperature. Many cases of pleuro-pneumonia were found there, and it is alleged that when a cow died, her carcass soon found its way in an attractive form to the butcher shops. This stable is now under quarantine.

It is amusing to read in the public print a defence of swill milk, in which the writer, a prominent and highly educated practitioner, declares that it is nutritious and has no noxious properties. I do not know from actual experience that it is unwholesome, and neither the microscope nor quantitative analysis shows it to differ from what is regarded as pure milk, but the Brooklyn Board of Health has responded to this defence by ordering all swill milk to be poured into the sewers, and within a day or two, thousands of quarts have gone to the eels and little fishes.

*A propos* of milk reminds me of the relation supposed to exist between its consumption and the distribution of certain zymotic diseases. Epidemics of typhoid fever and scarlatina have been traced with much certainty to the use of milk, but the method in which the milk becomes capable of giving rise to these has not been made clear. It yet remains unknown whether it received its infection direct from the cows, or from the water used in washing the pails and cows, or in fraudulent dilutions.

Mr. Power, at a late meeting of the London Pathological Society, suggested the possible connection between diphtheria epidemics and the use of milk from cows suffering with garget. It is known that garget was found among the cows in the dairies near Princess Mary's Home, Woking, when the epidemic of diphtheria prevailed there. The matter has been committed to Dr. Bardon-Sanderson and other experts for investigation. In the meanwhile your State Board of Health can greatly aid in the inquiry by drawing the attention of country practitioners to the importance of ascertaining the condition of the dairy cattle in localities where diphtheria exists.

Garget is a disease which does not usually affect the general health of a cow, and may therefore escape notice. It is probably a lymphangitis of the udder, characterized by slight swelling and ulceration of one or more of the teats. The milk is said to be sometimes shiny or stringy, and may be stained with blood.

In reference to the abortive treatment of diphtheria I desire to record the essential details of two cases in my own practice. I was called at 2 A. M., to see a strong, robust child 2½ years old, who was said to be in convulsions. I was at the bed side within ten minutes and found the child in the post-convulsive state, the thumbs still adducted and flexed in the palms. Inquiry elicited no satisfactory cause, either centric or excentric, for the convulsion. The pulse was 140, and the temperature 102.5°. It had been well and playful all the previous day, and without fever. The tonsils were deeply congested and swollen and covered each by a stellate pseudo-membrane.

I ordered fifteen grains of hydrate of chloral in lemon syrup and water, with a view to repress any return of the spasm; and the dose was to be repeated in two or three hours, if occasion should arise.

This was done in three hours, upon the child showing some restlessness. At 9 A. M., I again saw the child—pulse 100, temperature 100.5° diphtheritic patches on each tonsil, but smaller than before. It was fast asleep under the chloral influence, but was easily aroused. Potassium chlorate was ordered, internally and as a gargle. At 4 P. M., there was no more fever, pulse 90, temperature 97° in the mouth. A mere trace of diphtheritic membrane remained.

The next morning the child was quite well and passed from under my notice.

A few days subsequently a similar case presented, without however, the prodromic convulsion. From the pharyngeal appearances, and slight sub-maxillary swelling, and the elevated temperature and frequent pulse, the case was evidently one of diphtheria in the initial stage. Chloral was given as in the first case, and with similar effects and results. In twenty-four hours the child needed no more attention. In giving these meagre outlines of two interesting cases I recognize the fact that pseudo-membranous sore throat often



gets well spontaneously after a few hours. Nevertheless I ask myself whether it may not be possible to abort a threatened attack of diphtheria. Certainly this question is not negative by any *a priori* considerations. The poison is introduced from without, and why may it not be met promptly by its antidote, as in some cases the snake poison is by alcohol? It would be rash to pretend from the limited evidence that chloral is an antidote to diphtheria poison, still it has marked antiseptic properties, and perhaps prevents or limits the proliferations or multiplication of morbid cellular elements. It is also known to be an excellent anti-pyretic agent. Bouchut has shown that it may be safely given in any large doses to infants, even to the extent of producing surgical anæsthesia sufficient for major operations. From Fothergill we learn that its energy of action is in proportion to the intellectual development of the individual, which, of course, renders it least dangerous to infants and children. These statements fully accord with my own experience of its use. It was given in the first case above cited, as an anti-spasmodic, and the second because the diphtheria in the first had disappeared under its use. If it be true that in addition to its anti-spasmodic and anti-pyretic properties it possesses others of anti-zymotic nature, then may we reasonably hope to find in it a valuable prophylatic against diphtheria and other zymoses. In more advanced stages of these diseases after great multiplication of the poison germs has taken place, it would not be rational to expect to be able safely to introduce chloral sufficient to obtain effects possible at the outset.

My letter has outgrown its limits, and much matter which was pressing for insertion must be deferred.

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*Body Snatching in North Carolina.*—The present Legislature, fearful of the desecration of graves by "resurrectionists," has passed a law making it a felony to rob a grave, but giving the body of unclaimed criminals executed by the law, to medical colleges. As, since the death of the only medical college in the State, (the Edenborough College) there is no teaching establishment, graves are now sealed against intrusion from any quarter.

FAYETTEVILLE, N. C., January 4th, 1879.

*Dear Doctor* :—In office “clearing out” yesterday while cremating old letters and papers, your neat caligraphy caught my eye, and reminded me that it was about time to pay for the JOURNAL for current year. Among other things I saw a paper in different hand writing than, and perhaps, not so legible as this which I thought I would copy, as it might afford you some amusement and possibly your readers.

“A query naïvely put (‘What is Attie Salt?’) elicited the following descriptions: Attie salt—a compound of *sodalic* acid, and an hypothetical base *κίζοζ*—Combining proportions indeterminate—varying:

Formula, (symbolic) sod. o+k.

1 *ad* + some *x*.

Natural History and properties. Found native in garrets, in diamond-shaped crystals, among book-worms. (May be manufactured in any locality).

Odor—Unctuous—shoppy.

Taste—Varying according to composition and idiosyncrasy. Some specimens acid, sour, offensive. Others pleasantly pungent and palatable.

Remedial qualities ancipital—chiefly employed in mental affections. Prophylactic virtues when properly timed conspicuous.

PIR: D.”

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*A Veterinary Department in the Medical School of the University of Pennsylvania.*—It may be of interest to the general profession to know that about ten months since the question was put to the Faculty of the Medical School of the University of Pennsylvania as to whether they would create and take charge of a Veterinary Department upon the condition that, as a first step, an endowment fund of \$50,000 were raised and presented to them. The Faculty referred the matter to the Trustees of the University, who voted to answer affirmatively and accept the proposition. Ever since that time the gentleman who made the offer, Mr. Horace Smith, has been engaged in collecting the stated sum, but he has thus far made no statement of progress made.

## MEDICAL ANNOTATIONS.

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### RALFE ON THE EFFECT OF BICARBONATE OF POTASH ON THE ACIDITY OF THE URINE.

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Dr. Ralfe confirms the observations that the urine was always more acid the day following the administration of bicarbonate of potash. Dr. Ralfe found the effect of the bicarbonate taken often after food, on the acidity of the urine, was different from that where it is administered before meals. Taken on an empty stomach, the acidity, on the day administered, was only slightly depressed, whilst, on the day following, the acidity was considerably higher than it was the day before the salt was taken. When given during the process of digestion, the acidity of the urine entirely disappeared; twice being neutral, once alkaline, whilst on the succeeding days there was no marked increase in the urinary acids. Hence we may assert that an alkaline bicarbonate, upon an empty stomach, increases the acidity of the system, while after a meal it diminishes it.

The therapeutical value of these observations is evident—1. In case of acid dyspepsia, as in lithæmia, the alkaline carbonates must be given after food and not before. 2. When the stomach itself is loaded with free acid, the result of fermenting undigested food or mucus, then the administering of an alkaline before meals will, by diminishing the high acidity, aid the digestive functions.—*London Medical Record*.

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*Richardson on Caustic Alcohol*.—Dr. B. W. Richardson brought before the *Medical Society*, in October, the value of the ethylates of sodium and potassium as caustic agents. When caustic alcohol is applied to dry tissues no change takes place, but so soon as the part gives up a trace of water, sodium hydrate and ethylic alcohol are formed and the part is gradually destroyed by the caustic alkali. The action of the potassium alcohol is much more energetic than the sodium compounded. On the blood, the action of the ethylates is extremely rapid and marked; the red corpuscles being brought into solution and forming almost instant crystallisation of the blood, singularly like those described by Dr. R. Mead, as occurring in the blood after adder bites.

The white corpuscles, on the other hand, appear but little affected. Dr. Richardson has found the caustic alcohols, particularly the sodium alcohol, of great value in cutaneous nævi, lupus, and malignant ulcers.—*London Medical Record*.

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The English medical journals have adopted the innovation of cutting their pages.

*How to Stop a Cold.*—Horace Dobell, in his little work on "Coughs, Colds and Consumption," gives the following plan for stopping a cold. If employed sufficiently early it is said to be almost infallible: 1. Give five grains of ses-carb. of ammonia and five minims of liquor morphine in an ounce of almond emulsion every three hours. 2. At night give  $\bar{\text{z}}$  jss. of liq. ammon. acetatis in a tumbler of cold water, after the patient has got into bed and been covered with several extra blankets. Cold water should be drunk freely during the night should the patient be thirsty. 3. In the morning the extra blankets should be removed so as to allow the skin to cool down before getting up. 4. Let him get up as usual and take his usual diet, but continue the ammonia and morphia mixture every four hours. 5. At bed time the second night give a compound colocynth pill. No more than twelve doses of the mixture from first to last need be taken as a rule; but should the catarrh seem disposed to come back after leaving off the medicine for a day, another six doses may be taken and another pill. During the treatment the patient should live a little better than usual, and on leaving it off should take an extra glass of wine for a day or two. —*Michigan Med. News.*

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*Successful Case of Tetanus.*—Dr. Wm. P. Nicholson reports a case of tetanus in a negro boy 12 years of age. The tetanus came on in a fortnight after receiving a severe laceration of the foot by machinery. He had a convulsion while eating dinner, and a few minutes after his jaws were locked and he had marked opisthotonos. He was put in a quiet darkened room, and a teaspoonful of the following mixture ordered every three hours:

R  
Tr. Cannabis Ind.,  $\bar{\text{z}}$  ijss.  
Glycerine,  $\bar{\text{z}}$  j.  
Mucilage Acacia,  $\bar{\text{z}}$  ij.  
Cinnamon water to  $\bar{\text{z}}$  vj.

To each dose of this, ten drops of extract of ergot.

On the *tenth* day after the treatment was commenced the patient commenced to convalesce slowly.

Chloral hydrate in  $\bar{\text{z}}$  i. doses were added to the cannabis indica, and the latter increased to 40 drops at a dose, and this combination controlled the spasms in a satisfactory manner.—*Southern Clinic*, February, 1879.

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*Cæsarian Sections.*—Dr. G. Gaudin performed the Cæsarian successfully (Archives de Tocologie, September, 1878) saving both mother and child. Uterine contractions were so good, that no stitching was done except for the abdominal incision. Another case by Porro's method, operation by Dr. Fehling. (Centrallblatt für Gynäkologie, Nov., 1878). The incision made from above the

umbilicus nearly down to the pubes, the uterus was drawn through the abdominal wound and on Esmarch's band fastened round the cervix; this done the incision was made into the uterus, and the child extracted. There was no bleeding from the uterus. It was then cut off with a scalpel above the Esmarch's band which had been previously fastened around the cervix, and the pedicle secured by a clamp. The patient died on the fifth day from septic peritonitis. The antiseptic method was begun, but the spray broke down in the middle of the operation.—*London Medical Record*.

*Fœtal Length*.—Dr. Delabout, of Rouen, has found out a rule for conveniently remembering the length of the fœtus according to its age, which although only indicating the average, is applicable to the great bulk of the cases. For the first six months of intra-uterine life, the lengths at different ages is indicated in centimetres by the square of the numerical of the corresponding month. At the end of the first month the fœtus measures one centimetre; the second month, four; the third month, nine; the fourth, sixteen; the fifth, twenty-five; the sixth, thirty-six centimetres. For the three last months the increase is from four to five centimetres per month. So that at the end of the seventh month it is forty; at the eighth month, forty-five; and at the ninth month, fifty centimetres.—*Lyon Medical*.—*Med. Times and Gazette*.

*Professional Confessional*.—The *Louisville Medical News* mentions that the *British Medical Journal* has begun the year, by opening a column for unsuccessful cases, and professional blunders. The names of the authors are not given. This will be instructive reading, no doubt, and will show as the *Medical News* suggests, that when a full confession is made, that neither medicine nor surgery in the hands of the masters is that beautifully smooth business the initiated would suppose it to be.

[We would cheerfully give room in the JOURNAL for such confessions, but the space would be very limited].

*Shortia Galacifolia*.—North Carolina already famous for rare plants, has had restored to her floral treasures the above named plant. Many botanists have coveted the glory of re-discovering it, but the honor was reserved for Mr. Hyams, of Statesville, N. C. We learn that a party composed of Dr. Asa Gray, Mr. William M. Canby, of Wilmington, Del., Mr. Pennfield, of Philadelphia, and Mr. Hyams will make a botanical tour of our western mountains next summer.

*To Avoid Scars after Incisions*.—Dr. John H. Packard, of Philadelphia, recommends (*Phila. Med. Times*, Dec. 21, 1878) that in making superficial incisions the skin should be divided obliquely.

as in this way he claims scarring can be avoided. This method was suggested to him by witnessing the effects of an accident, a lady having fallen while carrying a china dish, a piece of which made a long, gaping, incised wound in her hand, the sharp knife-like edge of a fragment having cut through the skin very obliquely. After approximation the wound healed readily, almost without a scar. The traces of the injury could scarcely be discovered a few weeks afterwards.

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*Morphia in Labor Pains.*—Dr. Ernoul, of St. Malo, observes that hypodermic injections of morphia act most efficaciously in the relief of even the most violent pains of labor when these are excessive, and especially when produced in primiparæ by prolonged distension of the perineum. To relieve these it is only necessary to inject in the perineum one centigramme of the hydrochlorate of morphia. [Seven to ten drops of Magendie's solution in the arm is just as effectual]. The uterine contractions are not sensibly diminished, but only less painful. These injections, however, should not be used in women predisposed to hemorrhage.—*Med. Times and Gazette, from Bull. de Thérap.*

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*Apomorphia in Croup and Acute Laryngitis.*—Dr. Smidowitsch (*Med. Woch.*) recommends apomorphia as an expectorant, in doses of one-sixth to half grain every hour (one to one-third grains *pro die*) in cases of croup and acute laryngitis.—*London Medical Record.*

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## DEATH OF EMINENT MEN.

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JACOB BIGELOW, M. D.

Dr. Jacob Bigelow, of Boston, recently died at the advanced age of 91 years. He was formerly a Harvard professor; he was ex-president of the American Medical Association and in other learned societies held high office. He was the author of the "American Medical Botany," a book well known to the generation of medical men now just passing off the stage. His memory is greatly revered in Boston as the founder of Mount Auburn Cemetery.

J. B. S. JACKSON, M. D.

Dr. J. B. S. Jackson is another great loss to the profession of the same city. He died at the age of 72. He was "a pathologist of the old school. He was not a microscopist. But his unaided eye

often told the truth when his microscope failed." His life-time work was in pathological studies, and "it was bound up in the Warren Anatomical Museum and the Cabinet of the Society for Medical Improvement. His catalogue of the former is an octavo volume of 750 pages, and of the latter 350 pages."

JOHN B. BIDDLE, M. D.

Dr. John B. Biddle, Professor of Materia Medica and Therapeutics in the Jefferson Medical College, died in Philadelphia on the 19th of January. He was a teacher of eminence, and author of a work on Materia Medica.

### DR. WILLIAM E. FREEMAN.

This well known homœopathic physician died in Wilmington on the 23d of February, 1849, aged 51 years.

His whole professional life had been one round of merciful acts to the poor, and his declining days were sweetly tempered by the consolation which such a life surely brings. A large concourse of friends and beneficiaries attended the funeral ceremonies, making altogether the most imposing mark of esteem accorded to any citizen in our recollection.

### TO OUR READERS.

GENUINE FLUID EXTRACTS.—We have had the pleasure of testing the quality of some fluid extracts made by MESSRS. SHARPE & DOHME, of Baltimore, and have supplied medical friends with samples from this house, and we are prepared to pronounce them to be very superior.

We mention particularly extracts of *USTILAGO MAIDIS*, KAVA KAVA, American mistleto, (incorrectly called *VISCUM ALBUM* when it should be *PHORADENDRON FLAVESCENS*) and *JABORANDI*. This firm is courteous, prompt and reliable in their dealings.

NEW JERSEY WINE.—This Wine for sickness has long been in popular favor, but by no means intoxicating in its nature. We refer to Speer's Port Grape Wine, which has been introduced into the hospitals and among the first families in New York, the principle drug stores in this city, and in London and Paris, by Alfred Speer, of Passaic, N. J., who has devoted himself for several years to the cultivation of the Portugal Grape, and the study of fermentations and producing an article, the medical properties of which are said by gentlemen of reputation to be unsurpassed. Mr. Speer ferments his wine by a new process, peculiar to himself, without the addition of sugar or spirits. We doubt whether there is a vineyard in the old or new world that can yield a wine at all comparable to this in richness or delicacy of flavor. All first class Druggists keep it.

The above extract from the *New York Herald* shows the appreciation in which Speer's Wine is held abroad. We have drank the wine and can truthfully endorse what the above extract says concerning its good qualities. The way in which it is matured by Mr. Speer gives it a finer flavor than any wine we ever drank.—*Boston Traveler*. Salesroom 34 Warren Street, New York.

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### BOOKS AND PERIODICALS RECEIVED.

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Twenty-sixth Annual Announcement of the Medical Department of the University of Vermont. For the year 1879.

Report of the Board of Health of the State of Michigan for the year 1878.

Report of the Board of Health of the State of New Jersey, 1878. H. Trenton, N. J., pp. 247.

The Brazilian Tea, or Cha-maté; erroneously called Paraguay Tea. (*Ilex Paraguayensis*). By Charles W. Zaremba, M. D., pp. 19.

Catalogue des Graines Récoltées au Muséum d'Histoire Naturelle de Paris, en 1878. J. Decaisne, Professeur, Administrateur, pp. 22.

The Ophthalmoscope as a Diagnostic means in various forms of disease. By Joseph A. White, M. D. Reprint from Richmond and Louisville Med. Jour. 1878.

Electricity in its Relation to Medicine and Surgery. By A. D. Rockwell, M. D., pp. 28. Reprint from Virginia Medical Monthly.

Special Report of Homœopathic Yellow Fever Commission, ordered by the American Institute of Homœopathy. For presentation to Congress. 1879. New Orleans, La., pp. 56.

The Transactions of the Medical Society of Virginia for 1878. Bound with Virginia Medical Monthly. Containing a steel engraving of Julian J. Chisolm, M. D., pp. 554 and 55.

Address of W. O'Daniel, M. D., President of the Medical Society of Georgia. Delivered at the 29th annual meeting.

A case of Myxofibroma of the Auricle. By C. R. Agnew, M. D., of New York. Pamphlet, 2 pages, with heliotype plate.

Hepatic Abscess, with some remarks on Dr. Hammond's paper. By Walter Coles, M. D., of St. Louis. Reprint from Medical and Surgical Journal, October, 1878.

The Treatment of Spine Curvature, by continuous extension, a modification of the Plaster of Paris Jacket. Read before the New York County Medical Society, by John A. Wyeth, M. D., of New York. Pamphlet 8 pages.

Statement of the Affairs of the Insane Asylum. A report made by Dr. Eugene Grissom, Superintendent, to the Chairman of the Senate and House Branches of the Committee on the Insane Asylum of North Carolina.



# NORTH CAROLINA MEDICAL JOURNAL.

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**M. J. DeROSSET, M. D.,**  
**THOMAS F. WOOD, M. D.,** } Editors.

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## ORIGINAL COMMUNICATIONS.

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### OPHTHALMIA NEONATORUM.

By RICHARD H. LEWIS, M. D., Raleigh, N. C.

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Blindness under any circumstances, even when occurring in the very old, who having almost completed the journey of life have least to lose, is one of the saddest of all afflictions. When it falls upon those in the prime of life, or worse, upon those who have not yet passed the period of joyous youth, and nips in the bud all those bright and happy dreams and anticipations of the future with which the mind of the young is always filled, it is sadder still.

But saddest of all it is, it seems to me, when the "blackness of darkness" settles down over the eyes of the newly born, before they have consciously seen even the glorious light of day, there to remain as long as life shall last, dooming the poor unfortunate to a life of helpless dependence, and in many instances to want and positive suffering. It is true, that those who have never seen do not fully realize their privation, and that their feeling of regret is less keen than that of those who have once enjoyed sight; but that

negative happiness is more than counter-balanced by the deficiencies resulting from their never having had the use of the most important of the senses, as will, I think, be made apparent further on.

Such as have lost their sight later in life, have, previous to that calamity, acquired an amount of knowledge by means of the "unconscious education" received through that sense, which astonishes us when we reflect upon how much of our own knowledge, and of a kind too that could have been obtained in no other way, has been taken in through the eyes. They have secured definite ideas of color and form in the abstract, especially of the more delicate phases of the latter, and they possess, indelibly stamped upon their memories, innumerable examples of both in the concrete. In them the conditions necessary to a high development of the mind are fulfilled, they can appreciate what is told or read to them of the physical world, and their education can be made much more perfect and complete, and their pleasures of course greatly increased. Besides, they have stored up an immense amount of raw material, as it were, upon which the imagination can draw, *ad libitum*, in making up scenes of beauty for the inspection of the mind's eye. A few pieces of colored glass in the kaleidoscope can make, it is said, almost an infinite number of combinations: the number of combinations of bits of form and color possible to the kaleidoscope of the mind, passes comprehension. The imagination is always highly developed in the blind, and they have it thus in their power to weave the most pleasing fancies, to build the most gorgeous air-castles of endless variety: and while such employment is neither profitable nor useful, it is certainly a never-failing source of pleasure, for it is well known that the happiest among men, are those who dwell a large portion of their time in *châteaux en Espagne*.

In this way they can project their thoughts into external objects—in a word, get out of themselves.

On the other hand, those blind from infancy have absolutely no conception of color, and their ideas of form, derived solely through the sense of touch, must necessarily be crude and imperfect. They can tell that an object is round or square, but of form in its more beautiful and graceful manifestations they have no knowledge;—the shape of a box or biscuit they can realize, but to such modifications of form as are seen, for example, in the waving wheat-fields, or the

rippling surface of a moonlit lake, their eyes, both physical and mental, are forever closed. Of the physical world their knowledge must be exceedingly meagre, and having failed to acquire the mass of facts in the possession of their more favored brethren in affliction, the foundation upon which is to be based their mental structure, must, in the nature of things, be more narrow and circumscribed. They are then not capable of as high an intellectual development, and are compelled to occupy a lower plane in the scale of spiritual being. Besides, they are unable to direct their thoughts into channels external to themselves with such facility and with so much pleasure, and consequently they are more prone to brood over their misfortune, one would think.

I am not prepared, however, to assert positively that they are not as happy in this way as the others never having had sufficient opportunities of practical observation to form a just opinion; but, inasmuch as they must be intellectually inferior, their happiness, must be, to say the least, of a lower order. To use a strong illustration: a half-witted man may, after his fashion and according to his capacity, be as happy, or more so, than a highly intellectual man: but one moment of the philosopher's happiness is worth a life time of that of the idiot.

At any rate, it is clear, I think, that those blind from infancy are more deeply afflicted than other blind persons who have first enjoyed some years of sight: and I have been led to say thus much upon a subject that some may think superfluous, for the purpose of showing, that if there can be degrees in the responsibility attaching to such cases, it rests upon us with peculiar heaviness in those cases of threatened blindness, occurring in the earliest dawn of that short day we are allowed on earth.

Its applicability to the subject in hand appears, when I assert that the inflammation of the eyes of the newly born stands at the very head of the list of, certainly incurable, blindness occurring at any and all periods of life; and, that of the blindness coming on in the first few weeks after birth, it is the almost invariable cause.

Mr. Carter, in his recent admirable work on the eye, when speaking of this disease, says, that it is supposed to be the cause of nearly one-half the blindness at present existing in England. I hardly think that the proportion would hold good altogether in this country.

for two reasons; first, because in England, on account of the greater abundance of eye-surgeons, those cases that can be remedied by a timely operation, seek and obtain relief, while with us very many cases, notably congenital cataract, are neglected, either because the family physician has not the instruments necessary, or because of his reluctance to surgically interfere with an organ so delicate as the eye. There are a number of such cases at present in our asylum for the blind, which no doubt could have been given their sight by an operation during their infancy; but now, from non-development of the retina, it is too late. The other reason for the relatively larger proportion of blindness from the ophthalmia of the new-born in England, is the greater crowding of the inhabitants into filthy tenements, and the consequent violations of the laws of health which do not occur on this side of the Atlantic to such an extent, except possibly in a few of our largest cities. Rural populations are much less liable to this disease, and we would, therefore, expect to find a minimum of it in our own State, and doubtless it is as rare here as anywhere; yet, nevertheless, it is the most frequent cause of blindness among the pupils at the asylum, and I learn, from a list kindly furnished me by the matron, that of those who lost their sight under the age of three years, about 70 per cent. became blind during the first few weeks of life, and presumably, from the disease under consideration.

From the above it appears that the inflammation of the eyes of the newly born is the most destructive to sight of all the diseases of the eye, and consequently, there can be none in that class of more interest to the physician, or more deserving of our careful consideration; particularly, when we note the fact, that if promptly taken in hand, and properly treated, it rarely ends otherwise than in recovery. And it is of interest, not so much to the specialist, as it is to the general practitioner, for it is the accoucheur who first sees the disease, and who in a large majority of cases, is called upon to treat it.

Ophthalmia neonatorum, or to speak more accurately, the conjunctivitis to which the newly born are peculiarly subject, is not a specific disease, possessing as it does, the same general characteristics as inflammations of the conjunctiva in older persons: but, on account of its greater gravity when attacking those of such tender

age, and because of certain modifications resulting from the infantile organization, it deserves, and in the best text books it has been given, a special name and a section to itself.

The causes of this affection are various, but in most instances it can be traced to a want of cleanliness in one shape or another; and generally, it is the result of an inoculation of the eyes of the infant with some vaginal discharge, leucorrhœal or gonorrhœal, either directly, during the passage of the head through the vagina in delivery, or, indirectly, through the hands of the attendants, or clothes soiled with it. "The impure air of a room filled with excrementitious exhalations, smoke, dust, or acrid vapors, as well as the musty damp air of an unventilated room," is a frequent source of this disease; and the children of the poorer classes who inhabit such tenements are much more liable to it than the children of those in better circumstances. It not infrequently owes its origin to exposure of the eyes to bright lights soon after birth, or to draughts of cold air, or other irregularities of temperature which would be likely to excite catarrhal trouble in other parts of the body; for the potency of the catarrhal influence, whatever it may be, in producing conjunctivitis, all will admit, who have observed the epidemics of "sore eyes" that often prevail at the same time that "colds" of various kinds are peculiarly rife. Still another cause, is the entrance into the eye of some of the soap used in washing the child, or of the whiskey, that is by some midwives "absurdly rubbed over its head."

It makes its appearance almost always within the month, and generally during the first week of life, and in a majority of cases attacks in the beginning only one eye, but it is sure to extend to the other in a very few days, unless we are successful in protecting it from the discharge—a very difficult thing to do, by the way. In intensity it varies from scarcely more than an irritability of the conjunctiva, to full blown gonorrhœal ophthalmia, there being every degree between the two extremes. Some writers recognize two forms, the catarrhal and the purulent, and while such a division of the subject is not demanded by the scientific requirements of the case, as it is one and the same disease throughout, and it is impossible to draw a sharp line of demarkation between the two forms, they melt so imperceptibly the one into the other, yet I think it advisable,

as facilitating the description of the disease, and as affording a more accurate guide to treatment.

The term catarrhal is applied only to the milder forms, those in which the discharge is mucous, or at worst, muco-purulent in quality; and limited in quantity, while the term purulent, is, as its name implies, used to designate those cases of greater severity in which the discharge is purulent in character, and, in some of the worst cases we may almost say, *unlimited* in quantity.

In examining a case of the catarrhal form; the first thing that attracts our attention, is an accumulation of dried mucons at the corners of the eye and upon the lashes, gluing them together, and a greater or less amount of puffiness and swelling of the lids. This puffiness of the lids is usually a very prominent symptom; and is attributable to the laxity of the infantile tissues.

On opening the eye we observe, that the edges of the lids are red and not as thin as they should be, and, everting them, we find the palpebral conjunctiva thickened, and diffusely and uniformly red, and that of the globe exhibiting a network of engorged vessels with meshes of varying size according to the severity of the attack; through which the white sclerotic shows. Lying on the inner surface of the lower lid, and particularly on the retro-tarsal fold where the conjunctiva leaps over from the lid to the ball, we perceive flakes or strings of coagulated mucous or muco-pus.

In the purulent form we find all these symptoms exaggerated. The lashes are a mass of matter, and at the inner corner of the eye in most instances, is a little pool of pus, while the redness, puffiness, and swelling of the lids is marked, the upper lid being frequently so much enlarged as to overlap the lower. Opening the eye we find it literally bathed in pus, and after removing the discharge, we see that the palpebral conjunctiva is very red, very much thickened and swollen, and more or less rough in appearance from the enlargement of the papillæ; and that the ocular membrane is likewise diffusely red and swollen, and very often corrugated into concentric folds around the cornea, presenting the condition known as *chemosis*, which is due to a serous effusion into the sub-mucous tissue of the globe. In the severest cases the swelling of the lids is so great, that they "appear as large tumors in front of the orbital opening," though this swelling may, for the reason

previously given, be excessive even in the milder forms,---and they glow with an erysipelatous blush. The conjunctiva is greatly thickened, looks hard and branny, and the chemosis is excessive.

The discharge, which in the beginning may be thin and serous and somewhat scanty, speedily becomes purulent, and so profuse that on separating the lids it gushes in a stream down the cheek. Indeed, the pus is secreted with such rapidity in some of these cases, that it can actually be seen forming on the conjunctiva which had been cleansed a moment before. It is often streaked with blood, and the turgid conjunctiva will bleed frequently at the slightest touch, but it is a matter of no significance as the hemorrhage will be promptly checked by a return of the lids to their proper position. There is apt to be fever, general as well as local, and the little patient suffers much from pain.

In examining every case, mild or severe, a view should, if possible, be obtained of the cornea, for upon its condition will depend the prognosis and, to some extent, the treatment; but if it cannot be easily accomplished it is better to desist. Force should never be employed for three reasons: first, because it is not apt to accomplish the purpose, owing to the redundancy of tissue and the contraction of the orbicularis; secondly, because there is danger of emptying the globe if the cornea be already thinned by ulceration (such accidents have happened); and thirdly, because the crying and struggling of the child will be likely to increase the congestion and aggravate the inflammation.

It can, however, be safely done by gently lifting from the ball, and elevating the upper lid with a retractor, if the physician happen to have such an instrument. Whenever the lids, and particularly the upper lid, is everted for the purpose of examination, or for receiving the application, it should be promptly returned without fail to its proper position, as there is a natural tendency to ectropium and it may remain permanently everted. I need not say that in all manipulations of the eye the utmost care and gentleness should be employed.

The disease runs its course in from one to eight weeks according to the severity of the attack. In the milder forms it advances slowly, reaching its acme usually in a little less than a week; but in the worst cases it may attain its height in two or three days and totally destroy the eye in that time.

The danger to the eye consists in the liability to an extension of the inflammation to the cornea, and that liability usually bears a direct ratio to the amount of swelling of the ocular conjunctiva, or chemosis. The effusion into the sub-mucons cellular tissue compresses the vessels which impinge upon the edge of the cornea and furnish it with nourishment, and upon the amount of this pressure, depends the character of the lesion in great part. If the calibre of the vessels be only partially diminished, it is probable that the corneal lesion will be a circumscribed infiltration, or a restricted ulceration ; while, if it be more or less completely obliterated there is apt to be sloughing of the cornea *en masse*.

The prognosis under proper treatment, if the cornea be bright and clear and entirely unaffected at the time the case comes under care, is, I think I may safely say, almost invariably favorable. I say *almost* invariably, for I cannot altogether agree with Mr. Carter in his assertion that no case of ophthalmia neonatorum should *ever* end in loss of sight.

The experience of other surgeons equally as distinguished, is that there are some rare cases, which are nearly always due to gonorrhœal infection : that in spite of the most skillful treatment, rush on to destruction of the eye ; and while I have been very fortunate myself in never having met with one of these cases, nor having had one that has been under my care from the beginning which ended otherwise than in perfect recovery, I remember very well a case that I was once called to see in consultation with one of the ablest and best informed physicians of my acquaintance, in which, notwithstanding the employment by him from the commencement of the most approved treatment, there was necrosis of both corneæ, quite extensive in one and resulting in the condition known as hydrophthalmos and complete loss of the eye.

In this case the conjunctival inflammation was never excessive, and I attributed its untoward end chiefly to the weakly condition of the infant : and that leads me to say that the prognosis will be modified to some extent by the general health and strength of the patient.

Now while the outlook is exceedingly bright and promising if the suitable treatment be used, it is very gloomy if the disease be neglected, as it so often is through the ignorance of parents or mid-



wives, in thinking it a trifling matter, and in relying upon "a little mother's milk," an "alum curd," or some such remedy until irreparable damage is done. I do not deny that a great many cases get well any way, but it is equally as true that very many others eventuate in blindness when the sight could have been saved; and I feel it my duty to urge upon my readers the importance of impressing upon the mothers among their patients, and the midwives of their acquaintance, the fact, that a running from the eyes of a new born child is *not* a trivial matter, be it ever so slight, for there is no telling how soon it may become severe, and also, that they should always promptly summon a physician.

In the matter of treatment the first thing to be looked to, is the prevention of the disease. Upon referring to its causes we will at once realize that the most scrupulous attention to cleanliness in everything, and everybody about the child, will be most effective in this. If the parturient woman be known to have a vaginal discharge of any kind, and, more particularly, if she be the subject of gonorrhæa, the vagina should be well washed out by the injection of warm alkaline water during the labor, and the child's eyes should be washed first as soon after its *début* upon the world's stage as possible. The injections can do the mother no harm and they may be the very simple means of saving the eye-sight of her offspring.

Great care should be observed on the part of both mother and nurse to see that their hands are always clean before they handle the baby, and that all sponges and cloths of every description used about it are pure, and untainted by foul matter of any sort.

Care should be taken likewise to see that the room during the first week or two of the infant's life, is kept moderately dark, and that its eyes are protected from such sudden changes from darkness to light, as may result, for example, from the opening and shutting of an outer door. This difficulty is chiefly encountered among the poorer classes, notably with us among the negroes who, for the most part live in cabins of a single room, and we should always see to it that a protecting screen of some sort is "rigged up," or that the bed and cradle are placed behind the door. By this means too the mother and child are also shielded from dangerous draughts, but in shutting out the draughts and too much light, we must be on our

guard not to overdo it and exclude the proper amount of ventilation. When we call to mind the fact that the whole family, in many instances consisting of father, mother, and a half-dozen or more children, occupy this one room, and that soap and water are in great part strangers to their skins, we can appreciate the necessity for ventilation.

Fortunately, however, for them, their dwellings are generally so full of cracks that the perfection of ventilation—"the admission of fresh air through numerous small openings," is already arrived at. If the disease shall have attacked one eye we must endeavor to prevent its extension to the other; though we very often fail in our efforts. The simplest plan is to place a little soft cotton over the eye, a piece of oil silk over that, and to secure the whole with a bandage. This should be renewed once every day and the eye examined, and if there be no sign of inflammation it should be replaced.

As cleanliness is the most important thing in the prevention of the disease, so it is a *sine qua non* in the treatment after it is once established, as it seems to me any one on a moment's reflection will admit, though it is by no means uncommon for physicians to prescribe a lotion, and probably a very good one, to be dropped into the eye, without saying a word about first removing the discharge. It is self-evident, that before any curative action can be expected from a remedial agent, the administration thereof must be made under such conditions as admit of the exercise of its peculiar healing properties, and the condition essential to the advantageous employment of local astringents, the class of remedies demanded by the disease under consideration, is, that they shall come into immediate contact with the diseased tissue. Therefore in the proper treatment of ophthalmia neonatorum, when the discharge is at all profuse, it is absolutely necessary that it be removed before the topical application is made. This is usually done in one of these ways; either, with a soft camel's hair brush, or by allowing a stream of water to trickle into the eye from a sponge, or by washing it out with a syringe.

Some object to the syringe on the ground that there is danger in its careless use, of mechanically injuring the conjunctiva, and that the stream is apt to be jerky and at times is thrown with too much

force. I think, myself, that it is not advisable to use any syringe that cannot be manipulated with one hand, nor one that does not work very easily, but there can be no objection to a rubber ball syringe, the simplest form of which is seen in the ordinary drop-tube that ought to be in every drug store, and which answers the purpose admirably. With that little instrument and the most ordinary care, the eye can be safely, quickly and efficiently cleansed, and I much prefer it to any other method, though I am in the habit of supplementing it with the camel's hair brush to remove any fragments that obstinately adhere.

It is always best for the physician to cleanse the eyes and make the application himself whenever he makes his visits, so as to instruct the nurse, and to be sure that it is, at least occasionally, properly done.

The simplest way in detail of doing this is as follows: Having spread a towel over his knees, let him place the child across his lap on the side of the eye that is to be washed, with a sponge or soft bit of rag under the temple to catch the water and discharge.

Then, having tenderly separated the lids with the fingers of his left hand, let him inject a slow, steady stream of water or some astringent lotion into the inner corner of the eye, so that it must pass over the whole diseased surface before it makes its escape on the rag at the outer canthus.

He should be very careful that none of it rebounds into his own eye, as the discharge is exceedingly contagious, and he might in that way contract the disease himself. The syringing should be kept up until the eye is clean or nearly so, when, as above intimated, it may be supplemented with the brush.

This cleansing process ought to be repeated just as often as the eye becomes filled with the discharge, but as a nurse is more apt to carry out definite directions that demand no exercise of judgment (a quality totally lacking in many) on her part, it is safest always for the physician to decide himself how often it is necessary, and to direct that it be done at regular intervals, long or short, as the case be mild or severe, from every four hours to every ten or fifteen minutes during the day, and not quite so often during the night.

Almost any astringent will serve a good purpose in the treatment of this affection, but those most commonly employed, are the

nitrate of silver, sulphate and acetate of zinc, alum, acetate of lead and tannic acid.

Of these, the best in the estimation of oculists generally, and certainly in my own opinion, is the nitrate of silver. The acetate of lead is an excellent remedy if the cornea be intact, but owing to its liability to undergo chemical decomposition and to become deposited upon the abraded surface, if the cornea happen to be ulcerated, in the form of the insoluble carbonate, producing a permanent opacity, it is best, as a rule, to omit it.

If I were called on to define exactly the treatment I would specially recommend, I should say this : Cleanse the eyes in the manner above described with a lotion composed of sulphate of zinc one grain, alum three grains, water one ounce, which, by the way, is the favorite remedy of the Surgeons of the Royal Ophthalmic Hospital of London, just as often as the accumulation of discharge demands, and every 12, 8, 6, or 4 hours, according to the severity of the case, instil into the eye a drop or two of a solution of nitrate of silver of the strength of two grains to the ounce of water.

Under this treatment, if promptly undertaken and faithfully carried out, I am confident that very few cases would fail to recover completely.

In the very mildest form it is generally sufficient to drop into the eyes a little of a weak solution of sulphate of zinc, gr. i—ij. to the ounce, two or three times a day. In the worst cases, where the swelling and chemosis are excessive and more or less tense in character with a scanty serous discharge and fever, it is well to use cold compresses to the closed lids, if their proper application can be assured; but if not, it is best to omit them, as improperly applied they do more harm than good. When obtainable, it is preferable to have a block of ice at hand, with several pieces of lint or soft folded linen lying on it, so that, as soon as the piece on the eye becomes in the least warm, it can be immediately replaced with a fresh one; and when the inflammation runs very high this will have to be done every three or four minutes—hence the difficulty of having it well done. If ice cannot be had the coldest water available will answer. The compresses should be kept up for at least a half hour at a time, and repeated several times during the day and night.

In the earliest stage when the swelling is very great and tense and

the discharge is thin and scanty only the weakest astringents are admissible, but as soon as the swelling subsides somewhat, as will appear from a slight wrinkling of the skin of the upper lid, and the conjunctiva becomes a little relaxed, and the discharge purulent and profuse, it is well, in addition to the faithful use of the zinc and alum lotion and the weak solution of silver, if that fails to check the disease, to apply, once a day, with a camel's hair pencil, to the inner surfaces of the everted lids, a little of a solution of nitrate of silver of the strength of ten grains to the ounce, provided its effect is partially neutralized in a few seconds; and before the lids are returned to their natural position in contact with the globe, with a solution of common salt applied with another brush. It is sometimes advisable in these cases to scarify the swollen and chemotic conjunctiva—it relieves pressure, and the local depletion is often of benefit, but it should always be done after the application of the strong silver, for if done before, the caustic may go too deep in its action.

If the cornea become involved, the only change in treatment indicated is the addition to the other remedies of atropia, or belladonna in some form. The liquefied extract may be painted over the lids and around the eye, or better, a drop of a two grain to the ounce solution of the neutral sulphate may be instilled twice or three times in the twenty-four hours; but remembering the highly poisonous character of the drug, and the tender age of the patient, it is important to keep a sharp lookout for any constitutional symptom (dryness of the throat, flushing of the face, feverishness, &c.,) and immediately upon their appearance discontinue it for a time.

If the disease show a tendency to become chronic it is often of advantage to vary the astringent, as any remedy when long continued is apt to lose some of its virtues, or best of all, if it be possible, to order a change of climate.

I recall a case I had when living in Savannah, which, having obstinately resisted the most conscientious treatment with almost every known astringent for several weeks, was finally cured by a weak collyrium of zinc *and* two or three days at sea.

It is probable, as I have communicated nothing specially new or original in what I have had to say, that I have proven tedious to some of my readers, but, inasmuch as the text-books on the diseases

of the eye are in the hands of comparatively few of the general profession, and as this most important disease is not considered at all in some of the standard works on general surgery, midwifery, and diseases of children, it is not unlikely, I trust, that I have succeeded in giving a useful hint to others, and if I shall have been the means, indirectly though it be, of saving the sight of one of my fellow creatures I shall feel more than repaid.

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### ŒSOPHAGEAL STRICTURE.

By D. McL. GRAHAM, M. D., Duplin County, N. C.

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Bennie Graham, a child three years of age, accidentally swallowed caustic potash, on the 28th Sept., 1871.

Being absent from home, I did not see him until twelve hours after, when I found him with very high fever, and saliva flowing freely; complaining but little of pain, but vomiting every thing offered as demulcents or neutralizers, such as oil, sweet milk, gum and apple water. These remedies were applied immediately by his mother, nor could I better them on my arrival. This disturbed stomach continued for five or six days, when it somewhat passed off, and nourishing broths were retained. In a month after the accident, it was very evident that a stricture had formed in the œsophagus, as deglutition became difficult, and this was sometimes aggravated by spasmodic action. At this time his appetite was so improved, that he occupied his usual seat at the table, and though he craved to eat, yet he could only take a little sweet milk and molasses; sucking lemon candy continually between meals. His strength was gradually giving way, and the stricture becoming more complete, so that in March, 1872, his condition was such from inanition, that I carried him to Wilmington, and consulted Dr. W. G. Thomas, who, assisted by Dr. E. A. Anderson, found the œsophagus so occluded, a short distance above the cardiac orifice, as to admit with difficulty, a bougie 1-8th inch in diameter.

This examination was easily and satisfactorily made, by the manly coöperation of Bennie. Dr. Thomas then supplied me with a graduated set of waxed bougies, ranging from 1-8th to 3-4th inches, and

with them I gradually dilated the œsophagus, so that in a fortnight he could take solid food tolerably well. When the dilatation was sufficient to admit the largest bougie, he took food freely, but would choke occasionally, necessitating the use of probe.

This state of things continued until October, 1874, when Bennie choked while eating a black locust pod. I attempted immediately with œsophageal probe to remove the obstruction but failed after repeated efforts, on that evening. He passed a very restless and distressed night, by his constant and fruitless efforts to clear the passage. On the following day I offered to use the probe again, when he begged that I would not, saying that he would rather die than endure such suffering. I desisted, and determined to leave him to nature. So complete was the obstruction from the seed, that he was not able, so far as we know, to swallow even *a drop of water for fourteen days*, though his efforts were constant. During this time I threw into his bowels, twice daily, two eggs with a half pint of sweet milk, with a Davidson syringe; this would pass off every twenty-four hours as well digested faecal matter. Such a fast had reduced him to a complete skeleton, and on the night of the fourteenth day, while resting on his pillow, in my arms, he said, in a low, weak voice, "Pa, it felt as if something as big as my fist passed out of my throat; please give me a little water now and see if I can swallow." The water was furnished, and Bennie to his great surprise and delight, drank easily; and without difficulty ate a glass of grape jelly. When bed time came, and preparations made for retiring, he asked if we thought he "could swallow when morning would come?" being assured that he could he soon fell asleep, and awoke the next morning "all right." There was no move from the bowels until the second day after relief, and in the first discharge, we caught the *seed entire*, and it was at least triple its normal size. Since this he has had no difficulty in swallowing, eating food indiscriminately.

The stricture, I am satisfied was confined to a narrow point: for in introducing the probes, they would pass easily until the obstruction was reached, and then would pass with a sudden jump, as if there was a partial septum from which they slipped; so that the seed either sloughed out the septum, or by its enlargement broke down the contraction.

## SOME REMARKS ON AMPUTATION OF THE PENIS,

By W. W. LANE, M. D., Wilmington, N. C.

Towards the latter part of October, 1878, a well-to-do colored farmer and old family servant, about fifty-two years of age, consulted me for a diseased condition of the penis, for which he said he had been treated by a country physician for syphilis. The only item of his previous history worth mentioning is that his wife had died of cancer of the breast, the spring before the disease attracted his attention.

I told him at once he was suffering from cancer and that there was no cure but removal, and showed the case to my friends, Drs. Anderson and Wood, who quickly coincided with me in the diagnosis.

The disease commenced in the early part of the summer from a little fungous growth behind the corona glandis which continued to grow and give pain until he came to consult me at which time the disease had bursted through the prepuce and presented the appearance of a cauliflower excrescence. In accordance with my advice, he came down in a few days and submitted to the operation of removal of the organ.

The disease had made such progress, taking possession almost of the entire penis, with fistulous openings here and there, that I found it necessary to amputate close up to the junction with the body.

Not having a galvano-cautery, I used the old fashioned way of removal by one sweep of the knife. The hemorrhage was considerable, necessitating the ligation of several arteries.

The mucous membrane of the urethra was attached by suture to the integument, and the wound covered with carbolized cotton dressing, and bandage.

No catheter was used; the stump granulated and healed kindly, the skin closing over the face of it, puckering and narrowing, over the urethral orifice. Finding the latter was becoming contracted I placed a short bit of catheter in the opening which relieved the trouble and the patient has entirely recovered.

Since the first of February he has called on me, and seems thankful to have been relieved from so distressing and dangerous a disease and on that account satisfied that he acted wisely on submitting to the operation.



# THE MEDICINAL PROPERTIES AND USES OF THE WATERS OF THE BUFFALO LITHIA SPRINGS OF MECK- LENBURG COUNTY, VIRGINIA.

By GOODRIDGE A. WILSON, M. D., Summerset, Granville Co., N. C.

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The remedial power of these waters is now established beyond the reach of reasonable cavil. The traditional and abiding reputation given them by the jury of the vicinage, is fully vindicated by the more methodical trials of educated and scientific inquirers. Many Medical experts have borne testimony ; furnishing a body of experimental proof which it would be folly to gainsay : proofs drawn from careful observations made in the sick chambers of homes, scattered through the breadth of the land, and without the well recognized adjuvants of travel, change of air and scene, and diet, and social life, and freedom from business cares.

These testimonies, concede and attest, curative powers over a wide range of pathological states, the very extent of this range giving to the candid objector his most rational excuse for the rejection of facts, as well established as any can be by human testimony.

On this ground, scepticism has been indulged of the remedial virtues of all mineral waters, and probably will continue as long as men will insist on estimating, gauging and subordinating the chemical-combinations of nature's great laboratory—to the artificial products of the coarser chemistry of their shops.

However inclined to such abstract reasoning, a truer philosophy will guide to a safer decision (on this, as on some other subjects) when it heeds the voices constantly proclaiming : “Whereas, I was blind, now I see.”

An attempt to classify the properties of these waters, and enumerate the pathological states, to which they have shown adaptability—is the design of this paper—and these necessarily involve some consideration of the *modus operandi*. It is designed for the

professional reader, and within its limits can be but little else than suggestive.

And 1st the *Physiological* action of these waters.

Any HEALTHY person, capable of observing the functions of his body on their use, will note a marked exhilaration of spirits and exaltation of nerve force—as prompt as from use of a generous glass of wine—and most notably observed by those unaccustomed to the use of stimulants. There is also manifest increase in the force and frequency of the heart's action. In some, this exaltation of nerve force almost attains to a pathological state, being attended by cerebral pain and other nervous disquiets—but these latter seem to be promptly removed by the supervention of the 2d train of effects from these waters, viz : a notable increase in the secretions and excretions of all the glands of the body, and especially the great common emunctories—the skin and kidneys. And it is a PECULIARITY of these actions excited by these waters, that they all go on simultaneously—the activity of one, not entailing torpidity of the other, as is the case with the ordinary agents of our pharmacopœa, and notably, with the organs which seem vicariously to perform the functions of each other.

The 3d and last of the physiological actions of these waters consists in the increased demand and capacity for energetic alimentation, and whether this is due to specific tonic properties, or the antecedent actions already mentioned, need not now be considered. That these actions may be readily pressed to the development of pathological states may be readily inferred, from the common annoyance, and sometimes distress, from functional activity experienced by healthy, pleasure seeking visitors.

I have now enumerated only the prompt, sensible effects of the Buffalo Lithia Waters, viz : exaltation of nerve force, and stimulated circulation, with diaphoresis, diuresis, and purgation, and all these actions going on simultaneously. The professional reader will

see at once, that these are the means through which medical men in all ages, have combatted and overcome a wide circulation of diseases.

The ingestion and assimilation of external matters to its own structures, with the elimination of what has been rendered effete and hurtful, may be said to be the first conditions of animal life; and these vital functions are immediately reached by the actions above indicated.

The external cutaneous surface, with its internal prolongations to the cavities of all the hollow viscera with its vast glandular apparatus—these are the seats of these sensible actions. Let it be remembered that these same surfaces, are the avenues through which morbid causes, whether from alterations of temperature, or direct poisons gain access to the animal economy; also, that the resulting structural and functional changes in these surfaces, constitute the essence of the diseases we seek to combat.

It would be beyond the limits designed for this paper to elaborate these ideas. But enough has been said to be suggestive of practical indications, and to explain on the basis of an accepted medical philosophy—the efficiency of these waters in CHRONIC ENGORGEMENTS AND INFLAMMATIONS AND ATONIES—IN THE REMOVAL OF MORBID ACCUMULATIONS AND DEPOSITS—AND THE RESTORATION TO THEIR NORMAL PHYSIOLOGICAL TYPE, VITIATED AND SUPPRESSED SECRETIONS AND EXCRETIONS.

I have now only treated of the palpable, sensible effects of these waters. But every physician is daily in the habit of instituting what is called *alterative medication*, by the gradual introduction of minute doses of medicinal agents into the system, and thus producing the most benign results. The testimonials in favor of the alterative actions, of the Buffalo Lithia Waters are so full, that scepticism would argue greater mental weakness than credence. A large number of the astute medical observers from the frozen north to the

Gulf--such as Wood, of Philadelphia, and Howard and Byrd, of Baltimore, and Beale and Huston, of Virginia, and Jerman and Jones, of Carolina, and others of like attainments and capacity, furnish a body of experimental proof on this point, which, even if not sustained, by the positive results of the analytic chemist, would make it so much the worse for the chemistry.

But chemical analysis proves these waters to be rich in medicinal compounds. Their diuretic action secures efficient sewerage, thus relieving it of noxious products and quieting irritations of the urinary passages, but also, their alkaline compounds counteracts the acid diathesis so constantly present in *rheumatism and gout*, and by their chemical reactions secures in soluble form, what would otherwise be retained in the shape of insoluble and hurtful deposits.

I call attention to the exceptionally large quantity of the carbonate of potash, and desire to record the declaration that during forty years of acting professional life in a miasmatic region, I have derived more benefit in *hepatic* derangements, and malarial cachexies generally, from the gradual saturation of the system with this old fashioned "salts of tartar," than from any other treatment, regarding its alterative action as both safer and surer than that of the mercurial preparations.

The tonic and stimulating action of these waters is as well attested as any other of its effects. Drs. McGuire, Huston and Jones, and others, describe this action as that of a "decided nerve tonic." This action is too prompt to be accounted for by improved nutrition, or the presence of a chalybeate. But the analysis reveals the fact that phosphorus is amongst its constituent elements, the great generator of nerve power, and especial pabulum of nerve tissue. True, it is put down in the quantitative analysis, as only "traces," but it should be remembered that this substance is so volatile as to be constantly changing form at ordinary temperatures.

and as a medicinal agent, it is used only in very minute dose—say from one-fortieth to one-twentieth of a grain—and, in these doses, it is “a powerful general stimulant with special tendency to the kidneys and genital organs,” producing decidedly aphrodisiacal effects—and such are the well recognized effects of these waters. With the possession of these “nerve tonic properties,” we readily account for their value in the great class of nervous diseases.

And so in chronic *intermittents and remittent fevers*, the disorders and cachexies which follow in their train, having been relieved in the manner already explained—the nervous system (the first to receive the impingement of the malarial poison) is fortified against its assaults by this “nerve tonic,” whilst the work of a renovated nutrition is in steady progress.

It has never been intelligently claimed for these waters that they possessed any anti-periodic virtues in the sense in which Peruvian-bark is anti-periodic.

In the large class of what are called *Female Diseases*, perhaps it is desirable to be somewhat explicit.

Of course, these are limited to the ovaries, the uterus and their appendages; and, of course, no claim is set up for remedial powers in these waters over their *malignant* diseases and their structural changes.

But the functions of these organs are often interrupted by sympathy with other organs, or by faulty and deteriorated vitality in the general system; or alternations of temperature which declare their pathological state in the shape of *amenorrhœa, dysmenorrhœa, chlorosis*, or in passive and vitiated secretion. That these disorders should be often removed by an agent possessing the properties of these waters may be readily understood, especially when it is recollected that amongst these properties is that peculiar “nerve tonic” whose influence extends to the ovaries.

The *prophylactic* powers of the Buffalo Lithia Waters are very

valuable in some conditions—as in procrastinating *purity*, especially in those predisposed to constitutional diseases, in warding off the direful sequelæ of the *exanthematous fevers*, by keeping up healthy action on the new and callow secreting surfaces, and in some of the most distressing and dangerous diseases of *pregnancy*, by elimination of their exciting causes from the system.

There is one pathological condition in which I am sure these waters are *contra-indicated*. I mean in tubercular phthisis, after softening has taken place and hectic supervened. In many of these cases I have seen the circulation hurried, the cough more distressing, and colliquative sweats and diarrhœa increased to the speedy exhaustion of the patient.

In conclusion, the writer would say that he has long regarded these waters as a valuable *agent of our materia medica*, and *not* a panacea of indiscriminate application or universal efficacy. The described physiological actions are what takes place in a *healthy person*. *Many* invalids resort to these springs too much diseased to be benefited, until by intelligent care, they are prepared to realize these effects.

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### PLACENTA PREVIA.

By T. D. HAIGH, M. D., Fayetteville, N. C.

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Feeling assured that any suggestion will be acceptable, that may add an additional weapon in combatting a complication of labor so serious in its results to child and mother, and withal so taxing the nerve, and clear judgment of the physician, as placenta previa, I report the following case:

Mrs. ———, æt. 23, leuco-phlegmatic temperament, supposed to be near eight months advanced in pregnancy, (fourth child) without premonition, was seized with a sudden gush of blood from the vagina while attending to usual household duties on Sunday, Jan-

uary 6th. Under the use of tannin, opium, and rest, the hemorrhage ceased, until the following Tuesday night, when she again had a still more copious return of the flow, which again yielded to treatment (or more correctly speaking ceased as such flows usually cease with or without treatment). On Monday night, January 13th, the hemorrhage again returned so copiously that it became apparent longer delay in bringing on premature labor would jeopardize her life.

Having already diagnosed correctly a case of placenta previa, and having previously determined in case the tampon should be required, to use a solution of Monsel's salt (the sub-sulphate of iron) applied directly to the bleeding vessels, with Dr. McDuffie's consent (who I had requested to advise with me) I applied several folds of soft cloth saturated with the solution (20 grains to the ounce) in direct contact with the placenta, and then applied the tampon : now 2 A. M.

The os was barely dilated sufficiently to allow the application, thick, and from the touch should judge she was not more than  $7\frac{1}{2}$  months advanced. Observing now that she complained of periodical uneasiness or bearing down as she expressed it, we gave the fluid extract of ergot and this appearing inert, we substituted the wine with like want of success.

Waiting patiently (there having been no external evidence of hemorrhage since the application of the tampon) until 2 P. M. the next day, I removed the tampon hoping that by this time the os would have dilated. Examination revealed the os in a dilatable condition, the portion of the placenta presenting dry and rough, evidently the effect of the astringent application. It was detached anteriorly about  $2\frac{1}{2}$  inches above the os, sufficiently to allow the index finger to pass.

We now attempted dilatation with Barnes' dilators, but were foiled in that, at each attempt to fill the bag it being thrust out by the uterine contractions. Fearing delay, as the hemorrhage now returned, I proceeded to dilate with the hand and gradually succeeding, I passed the hand anteriorly detaching the placenta sufficiently for that purpose. The child was lying transversely across the pelvis, spine arched upward, head to the right, face downwards.

Delivery was accomplished speedily and without difficulty, and

the placenta was immediatly removed, and the patient made comfortable, she was very pale and exsanguined, but still there was less loss of blood than was to have been apprehended and we were well satisfied with the result.

On examining the placenta, the points of application of the solution were well marked, the appearance as if shrivelled, and in striking contrast with the portion which became detached after delivery of the child.

The advantages of using the sub-sulphate of iron, over the simple tampon would seem to be not only in constringing the *already exposed vessels*, but also those which afterwards become free by the further detachment of the placenta under contractile efforts, and which are pressed down upon the saturated compress while in situ.

Since this case was under care, Dr. McDuffie informs me that he has seen it stated that Dr. Mears, of Indianapolis, recommends through the New York journals the use of the persulphate, the perntrate or the perchloride of iron in these cases.

If this case serves to strengthen the suggestion—it will accomplish that much good, though at the time of using it I had never seen the remedy suggested, though its peculiar adaptability to all cases of extensive surface bleeding would readily suggest its use. The subsulphate (Monsel's salt) is said by the U. S. D., to be less caustic than any other preparation and less irritant in solution and more peculiarly adapted to hemorrhage from large surfaces.

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*Medical Botany.*—The New York *Medical Record* (Feb. 22d) makes an argument for the restoration of medical botany to the college curriculum. It ought by all means be added. As the matter stands now the apothecaries and eclectics have monopolized this branch of science, and for the most part our most useful remedies are now reaching us through this round about course. By all means *lengthen the course*, and let our young men have as good instruction as drug clerks get.

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Dr. A. C. Rankin reports a case of puerperal convulsions, attended by rupture of the uterus and recovery, in the *Medical Journal and Examiner*.



## SELECTED PAPERS.

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### THE YELLOW FEVER AT HAVANA—ITS NATURE AND TREATMENT.

By CHARLES BELOT.

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Those, who can avoid the centres of infection, rarely fall sick, at least if they commit no excess or imprudence. On board vessels, the sailors are more exposed than the officers, the latter more than the commander. So also in barracks, It appears, that in this disease, as I have also observed in cholera, dead bodies augment the noxious quality of the miasm. When a man dies aboard ship, or in a place, where individuals reside subject to the disease, they soon fall sick and exhibit very grave symptoms.

If the surrounding air is the vehicle of miasmatic substances, it is evident that all those who breathe the same air under circumstances of predisposition, and who absorb these miasms, are liable to contract the disease. Miasms being heavier than the air, infect especially the lower strata, where it follows, they can exist a long time before the respirable air becomes vitiated. In this case, the appearance of the disease is retarded. From numerous experiences, we have proved that the best conductors of miasms are wood and clothing, especially woollen clothing. A man, a sailor, can convey a deleterious miasmatic cause from one place to another without being himself affected. This cause will rest without effect, so long as it is not set free into the atmosphere by the hand of man or by a current of air. The period, during which the miasmatic cause remains innocuous, is commonly called the period of incubation. This is variable. At Havana, it is allowed from eight to twelve days. Merchant ships, arriving even in the midst of an epidemic, remain this lapse of time before having sickness: if sooner, it is because they have already undergone the miasmatic action before entering the port.

It is not rare to see vessels remain three or four months in port, take in their loads and arrive at destination without having had sickness during the voyage and yet communicate the disease to those who come aboard to discharge the cargo, and so set the miasm in motion.

Thus yellow fever propagates itself by the air, by absorption, by infection. But it will be said if this be true, all who are exposed to the deleterious miasm ought to be affected. Not so, because at the same time that this cause is acting, there must be a predisposition to receive the morbid influence. How often have we seen, for example, two persons placed in the same centre of infection, the one assailed and the other escape! If I may be permitted the comparison, miasms act on the body like seed upon the land; grains which sown in one soil do not germinate, are perfectly successful in another.

It happens, that individuals falling sick aboard ship go ashore to be nursed, and communicate the disease to one or two of those about them. The latter keep this germ in incubation four or five days, and often convey it to great distances, where they communicate it to others still.

We had the past year a case, which demonstrates the truth of that which I have advanced. An epidemic broke out on the *Anne-Marie*. The contagion ceased among the men of the crew, who did not retain even the communicative force, if I may so express it. None of them seem to carry with them the germ of the disease, as they did not communicate it to others, who went among them. Yet some persons visited the vessel, were contaminated, carried the disease aboard the *Chastan*, and died. This was direct infection by absorption at the epidemic focus.

Another fact. The seamen of the *Lorientais*, placed to leeward of the *Anne-Marie*, were infected by the deleterious air coming from that ship. Finally, a third fact proves the truth, I am exposing.

On the 12th of June, 1857, we had not a single case of yellow fever in the harbor. The weather was fine, and we had come to think, that the epidemic would not be serious. At this time arrives an English vessel, the three master, *Mary*, from St. Thomas. She had lost the captain and three men on the voyage. Upon her arrival at Havana, four men of the crew, seriously ill, were sent to the hospital, where two died. There was sent on board this ship, as a watch, a part of the crew of the *Hannibal*. Two of these men fell sick, and the others returned to their vessel, where they communicated the disease to the crew, which is sent to the hospital. Of

these, six sailors and the captain died. At this time there enters in distress into the port of Havana, the Swedish brig *Maria*, dispatched from Trinidad de Cuba for Europe. This vessel was at St. Thomas, at the same time with the English three-master, of which we have spoken. From this island, she went in ballast to Trinidad, where she was loaded with sugar. When four days out, the captain and three men fell sick. Two succumbed, and next day the captain and the other sick man died.

The commanders of the vessels anchored in the neighborhood, demanded the removal of the *Maria* and of the *Hannibal*. No attention was paid to their application. The disease gained a footing ashore, and produced one of the most deadly and most protracted epidemics ever known at Havana. It lasted during the whole winter of 1857-58. This fact proves at once, that yellow fever is contagious at least by infection or absorption, and that the air is the conductive medium of the miasmatic influence, which is capable of resting latent wanting only a favorable circumstance for development. In this, we have said, yellow fever has a remarkable resemblance to cholera. It is enough to have seen an epidemic of yellow fever to be convinced, that the disease is not propagated by contact. I have myself renewed the experiences of physicians at Martinique, and I have never seen men fall sick after having slept with fever patients, nor after using their clothing, provided they themselves resided in pure and healthy surroundings. On the contrary, I have rarely seen individuals escape the infection, when they breathed a contaminated atmosphere.

When a vessel has lost one or two sailors aboard, the air is so surcharged with miasm, that the disease soon assumes an excessively grave character. It is this which has caused some to call yellow fever nautical typhus. The proportion of mortality then increases in a frightful manner, although the sick may be sent ashore. In 1852, I had charge of the French vessel *Ceres*, from Dieppe. This vessel came from a whaling voyage, and had been sent to Havana with a load of coal. The day after his arrival, the captain was seized with a sudden attack, and died in twenty-four hours. The second officer and a sailor succumbed, and died in three days. The rest of the crew was attacked and sent to hospital, where all died to the number of fourteen. Men were

recruited to form a crew for the *Ceres*, but all including the new captain died save one. The vessel was fumigated, loaded with sugar, and furnished with a mixed crew, such as could be picked up. M. Miot, then a midshipman on the *Ardent*, brought the *Ceres* into France. He had the care of sick men during almost the whole voyage.

This example, and a thousand others, which present themselves every year, prove the truth of what I have advanced that the more the focus of infection is confined, the more deleterious the miasm.

I have already said; that wood is a good conductor. It retains this property a long time. Hence comes the melancholy renown some vessels have acquired in epidemics of yellow fever. It is these which always give the saddest result.

Yellow fever is endemic at Havana. We always have the germ; even in the heart of winter.

This terrible malady attacks only strangers coming from a more temperate climate. It does not attack the African negro, and if some cases of Africans having black vomit are spoken of, I do not think they had yellow fever, black vomit alone not constituting this disease, since we have seen, that intermittent pernicious and grave bilious fevers may present this symptom. When it attacks negroes, born in temperate climates, it does not affect them so severely as those coming from American ships, and born in New York and Boston. Creoles are also liable to the disease, but it is when they come from the interior, and arrive in the midst of the epidemic.

We have said that yellow fever is not contracted a second time. This is generally admitted, but demands some explanation.

I have never seen an individual, who had had the disease gravely, contract it anew. Yet I have had the care of many seamen, who assured me that they had the disease before, and felt again the symptoms of which they complained anew. But there was nothing to prove that these subjects had not confounded a mild vomito with a simple bilious fever.

This, however, is positive, that I have never in my long career seen veritable yellow fever attack the same person twice.

Recapitulating, we think we have proven that yellow fever is a disease *totius substantiæ*, produced by miasmatic poison *sui generis*, of typhoid nature, contagious by infection, and presenting, as a constant result, alteration of the blood.

This definition should serve as a basis for the treatment it requires.

Yellow fever being a miasmatic poison, the antidote of which we know not, the only rational medical treatment is that of the symptoms. The febrile organism is nothing more than the energetic reaction of nature to eliminate this poison, the effects of which, may be compared to those of the venom of the *crotalus horridus*. So there should not be such general blood-letting, as would enfeeble the patient, but there must not be any neglect in combatting local congestions.

Experience has proved to me, that local blood-letting was indispensable, and that cuppings were preferable to leeches. Eight cups on the nape of the neck, ten on the loins, and eight on the stomach generally suffice to alleviate the symptoms, and if four hours after the first application there is not sensible amelioration; let it be repeated.

But it is of more value to recur to these local applications than to general bleeding, because this always weakens more, and has an indifferent influence on the local symptoms. I prefer cups to leeches, because they act on a larger surface, while their action is more prompt; and it is easier for the physician to control the quantity of blood to be taken, and to apply them, especially with the scarifiers now used.

The pains in the head and loins cause the most suffering in the first period, and it is against those symptoms, that action should be prompt and energetic. Let there be associated with cuppings, strong mustard foot-baths every two hours, and sinapisms applied to the lower extremities; at first to the thighs, then to the calves of the legs, as long as they can be endured by the patient.

One very good auxiliary, which should never be neglected in resisting local congestion, and to diminish the plasticity of the blood, is tincture of aconite. This remedy given in doses of six drops in twelve ounces of water, administered by spoonfuls every hour, has a truly magical power. The pulse lowers, its frequency diminishes, as the heat of the skin and sweats are exhibited. It should never be neglected in the first or congestive period.

If the disease has commenced with vomiting, if the tongue is

charged with mucous deposits, let an emetic be given, composed of an infusion of thirty-six grains of ipecac in four ounces of warm water. When this commences to produce its effect, the vomiting will be assisted with warm water, and continued until the ejections are clear as water. The object of this vomiting is not only to dis-embarrass the stomach of food, but to bring on a diaphoresis, almost always favorable.

There need be no alarm, when immediately after the vomiting, the patient complains of headache. This caused by the efforts of vomiting. It is always well to give one or two cups of infusion of tilia to calm the nervous excitement produced by the vomiting, and at the same time to promote diaphoresis.

I prefer ipecac to tartar emetic, recommended by many medical men, because I have observed that the last remedy, in the same dose, does not act in the same manner on all individuals, and has a special irritating effect on the mucous membrane of the stomach. When an emetic is indicated, it should be administered before cupping.

If the tongue is not charged with mucous deposits, if the patient complains of great pain in the epigastric region, vomiting must be avoided, as its consequences would be grave. In this case, which my father called acute gastritis, where the pancreas and duodenum appear chiefly involved, the treatment should be local, with cuppings, with emollient cataplasms upon the abdomen, with embrocations of oil and belladonna, with light purgatives if there is constipation, with injections, with hip-baths of mucilaginous decoctions, but especially with cupping repeated over the abdomen.

About four hours after the vomiting, the patient will have less fever, the pulse will be less frequent and less strong, the skin will be moist, or there will be general transpiration. It is necessary to take advantage of this moment, to administer a purgative of castor oil, or of nitrated sulphate of magnesia. If this remedy fails to act after two or three hours, its actions should be promoted by injections of warm sea water, or of sweetened water and olive oil.

When the disease commences with diarrhoea, it is almost always consequent upon indigestion, and emesis is still indicated.

During this period, the patient should have warm drinks to aid transpiration as much as possible. He should be comfortably covered, and his chamber well-aired.

It is not unfrequent even in the midst of a violent epidemic, in full summer, to see the more alarming symptoms of yellow fever cease, as by a miracle, on the third day, under this treatment. There are cases, commonly called fever of acclimation, but they are rare. The gums, the tongue, and above all the urine, which offers an essential symptom, the presence of albumen, and furnishes the surest semeiological sign, should be examined with care.

When despite this treatment, the disease has not been checked, the symptoms of the second period are presented. Then all loss of blood becomes contra-indicated. Even purgatives should be avoided, because they irritate the already suffering intestinal mucous membranes. From this time, the attention and sagacity of the physician should not sleep; the least mistake would be fatal, because the alterations succeed each other with frightful rapidity.

The headaches should be resisted with flying blisters on the nape of the neck, with compresses of brandy with camphor and belladonna on the forehead. To soothe the oppression of the stomach, I apply compresses of brandy with camphor and belladonna, and give internally tincture of *nux vomica*, but in very small doses; and its effects are marvellous. The stomach should be relieved by means of injections. When, despite the compresses, of which I have spoken, the pain in the stomach persists or is aggravated, a flying blister is applied at this point. If nausea occurs, bicarbonate of soda alternated with *nux vomica* is the most useful remedy. If the disease advances and vomitings occur, they must be treated according to their character. If they are white, foamy, acid, holding in suspension flakes of mucous membrane, black vomit is not far off. It is often arrested by bicarbonate of soda in small doses repeated every half hour, alternated with carbonate of magnesia. If the vomitings are bilious, *nux vomica* and arsenical solution will be employed in preference, and will be continued, if black vomit occurs. *Nux vomica* acts upon the nerves of the stomach, diminishes excitement, and quiets the patient. As for arsenic, while it may be difficult to appreciate its action in theory, its happy influence in this case is as certain as that of sulphate of quinine in intermittent affections. According to the condition of the

stomach and of the patient, the use of a little fresh water slightly sugared, may be allowed, and thirst may be appeased, with small pieces of ice.

Sometimes hemorrhages occur without black vomit. They constitute of themselves a grave condition. Limited hemorrhages, for example, buccal and nasal hemorrhages, are combatted with tonic applications, ice and astringents; but the important point is to combat their cause. This cause is always alteration of the blood. At this step in the malady is the important point. In the acute continued type, it is rarely that hemorrhages and alterations of the blood can be successfully resisted, the rapid progress of the disease allowing no time, and nothing averting a fatal termination.

When hemorrhages have not taken place, if the symptoms invade the brain, cold water to the head, blisters to the nape of the neck, and calomel internally are remedies, to which recourse should be had. But I repeat, that this will be frequently useless, because the disease progresses with frightful rapidity. Let us hasten to add, that the acute type, so formidable, presents itself but rarely in the course of an epidemic.

If the continued type offers so few chances to the physician, it is not so in the remittent and intermittent types. In the latter, the succession of symptoms operating with more slowness. He has time for action. We have said that the disease begins with or without chills. This is a very important therapeutic indication. The first symptom (the chill) coming on perhaps after a meal, perhaps in the morning between two and three o'clock, an emetic, administered at once, disembarrasses the stomach of ingests, and saburral deposits, and determines a favorable transpiration. After the emetic, the patient should be allowed repose and sudorific drinks. If the symptoms call for an application of cupping to the nape of the neck, to the loins, on the abdomen, according to the indications of local congestion, it is rarely that twelve hours pass, without the patient showing marked relief. If the congestive symptoms do not yield to the first cupping, they will be overcome on the second application, and by completing the effect of the emetic, with a purgative oil or nitrate salt. In most instances, after this treatment, the remission will be found to come, and this is the most important moment for the physician. This remission often occurs after the



first twenty-four hours—in other instances, it is delayed two or three days. When, after the emetic and purgative, a general relaxation is observed, but insufficient to bring on transpiration, use should be made of diaphoretics, and preferably of Dover's powder, taken every hour in doses of a grain, until sweat is presented. There may be given also liquid acetate of ammonia or spirit of mindererus, in doses of ten drops in six spoonfuls of infusion of tilia every hour. After these remedies, the remission will not be delayed.

[To be continued.]

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### “THE DISCOVERY OF THE SOUL.”

We make the following extracts from a letter by the Berlin correspondent of the *Nation* on Popular Science in Germany.

“Another still more amusing dreamery of popular science may be seen in several articles published within the last few weeks by Prof. Jäger, of Stuttgart, and entitled “The Discovery of the Soul.” The soul according to this naturalist, is simply (*boni soit qui mal y pense*) a smell, and consists of a ‘chemical composition of albumen’ called nervina. Liver, kidneys, muscle, brain, each emit a peculiar odor which the writer's olfactory nerves readily distinguish. Each of these organs has thus its own soul, and, collectively, they constitute an aura which may rise above the threshold of consciousness, and even become offensive, as in animals and in negroes, but which more commonly is a very efficient and unconscious agent mediating the instructive attractions and antipathies of temperaments and sexes. Thus small children recognize their parents. Not only hunger but joy, love, hate, and pain emit their own peculiar odors. In people of sanguine temperament the ‘soul-stuff’ is most loosely bound with albumen, in choleric people more firmly. Moses discovered the scientific fact that there is a soul in the blood: Oken that the soul, like all else in the animal body, was in the cell; but Prof. Jäger claims priority in showing indubitably, ‘by a long series of scientific observations,’ just *what* the soul is.”

More than a century ago the old negro song had embodied the essence of this philosophy in the couplet:

“De Lord he loves good niggers well  
He often tells them by their smell.”

## CORRESPONDENCE.

### OUR PARIS LETTER.

*Sketch of the Life and Works of Professor Tardieu—The Plague—Dr. Planat, of Nice, on Treatment of Strangulated Hernia with Ergot—Dr. Pacy on the Glycogenic Function of the Liver—The Thermo-cantery the rage in Paris—W. R. Warner's Exhibition at the Paris Exposition.*

11 RUE NEUVE DES CAPUCINES.

PARIS, February 20th, 1879.

*To the Editors of the North Carolina Medical Journal:*

GENTLEMEN :—Professor Auguste Ambroise Tardieu, whose death was chronicled in my last letter, was born in Paris, on the 10th day of March, 1818. His father was a geographical engraver, of moderate means, who by faithful toil and many sacrifices, managed to give the son a collegiate education. At the age of twenty years the young man matriculated at the School of Medicine, and, after having been the Laureate, both of the Faculty and of the Hospitals, graduated in the spring of 1843, as a Doctor of Medicine.

His thesis, which was entitled "*Chronic Glanders and Pary,*" attracted much attention, and is still regarded as a standard work on the subject of which it treats, especially as regards the last named affection, of which he had made forty-eight practical observations between the years 1837 and 1843.

Having been made chief of the clinic at La Charité, he soon afterwards competed for an assistant professorship in the medical school, which he succeeded in obtaining although opposed by more than twenty of the most promising of the young medical men of France. This result was achieved, not alone by the thoroughness and accuracy of Tardieu's knowledge of his profession, but by his wonderful facility and fluency of language—that natural gift of eloquence which distinguished him throughout his career. Two years later he was elected Physician to the Central Bureau of Hospitals, and assigned to the *Hopital Lariboisière*, which was then known as *Hopital Louis Philippe*. In the year 1848, while Assistant Professor, he was called upon to replace temporarily, Professor

Duméril, in the chair of Pathology : and as France was then suffering from its second visitation of cholera, he determined to devote himself to that subject. His lectures in this connection were perfect models of their kind, and added greatly to the reputation of the rising young professor.

Subsequently, having been made a member of the Committee of Public Health, and Medico-Legal Expert of the Tribunals, he applied himself specially to these two branches, and competed with Béclard, Bouchardat, Guérard, and Sanson for the chair of Hygiene in the Medical school of Paris. Although Bouchardat was the successful candidate, the essay presented by him in the contest, on "Sewers and Cemeteries" is the most able and exhaustive in the French language on the subject of which it treats. In 1859 he was elected a member of the Academy of Medicine ; two years afterwards he was called upon to report upon the medicinal qualities of the mineral waters of France,—a task which he performed with much fidelity and success ; and in 1867 he had the honor of presiding over the General Medical Association of France.

When Professor Adelon retired from the chair of Medical Jurisprudence, Tardieu was immediately chosen to fill it : and in the same year he received an appointment on the Medical Staff of the Emperor as consulting physician. In 1864, he was named Dean of the Faculty, a nomination which was at first well received, but subsequently became very unpopular, for certain political reasons which it is unnecessary to discuss in this connection. From that time Tardieu lost his influence and prestige, and the opening of the subsequent session proving the most stormy and exciting ever witnessed in Paris, he was compelled to resign his position as Dean.

After his report in the case of Pierre Bonaparte in 1870, the students positively and persistently refused to listen to him.

His admirable private character, his great professional learning, and his wonderful eloquence as a lecturer—were all forgotten in the wild storm of political hatred which his over-weening devotion to the reigning dynasty had inspired, and in the midst of his brilliant career, and with his task as a teacher only just begun, he found himself constrained to leave his lecture room, never to enter it again. His connection with the Faculty from that unfortunate time until his death, was that of an examiner, and nothing more.

There can be no doubt, however, of the fact, that as a teacher, as a general practitioner, and especially as a Medical Jurist, he was one of the ablest men of his times, and that in his loss France has sustained an affliction which she fully appreciates, and the whole world of science duly measures.

The great topic of discussion in all circles here is the *Plague* which has appeared in Russia. So many contradictory statements have been made in regard to it that there is the greatest possible difficulty in arriving at the real facts of the case—in ascertaining the precise nature of the disease prevailing in the affected districts; in determining its origin and march, and in deciding upon the extent and tendencies of the epidemic. The most authentic accounts seem to be embodied in the report which the German Imperial Sanitary Department has just published in regard to the disease prevailing in Astrakan, and from which I gather the following interesting and seemingly reliable details :

“The particular descriptions of the disease, made by the Russian military surgeons who have been on the spot, scarcely admit a doubt of the fact that there has occurred a very limited, but at the same time in a degree a very intense, outbreak of the plague; the so-called Indian (or Asiatic) plague, which is marked by a prevalent complication with an inflammatory affection of the lungs and by an extraordinarily acute course, mostly ending very rapidly in death. It is probably, therefore, the same form of disease which in the 14th century, under the name of the “Black Death” devastated Germany. The first authentic outbreak of the disease on its present theatre of action happened on the 19th of November, at Wetlianka, a locality near the right bank of the Volga, 28 German (or about 130 English) miles from Astrakhan, on high, moderately inclining, and not marshy ground—a village, the 1700 inhabitants of which are chiefly supported by fishing, and by their trade in dried and salt fish. What particular local conditions occasioned the outbreak precisely in this spot is as yet unknown. Likewise the statement that troops returning from the war, buried there a number of their comrades who had died of typhus, or that, according to another version, they had buried there in a superficial manner a number of horses which had died of glanders, and that it was in the neighborhood of this spot that the first outbreak of the

plague was observed, is a statement which still requires confirmation. On the other hand, there are not wanting data pointing with probability to the fact that in this case we have to deal, not with an independent primary origin of the disease, but with the last link in a chain, hitherto unobserved, of less important outbreaks whose first source is to be sought in one of the chief cradles of this disease, in the northwestern corner of the Persian Empire. There, in the highlands of Aderbeidshan, which extend from Mount Ararat to a point south of the Shari lake, and on the north borders immediately on Russian Caucasia, the plague, after apparently disappearing for 28 years, has shown itself since the year 1863 in repeated outbreaks, some weaker and some stronger, which have come more or less into public notice, as in 1863-1864, 1870-1871; 1873-1874, and in 1876-1877, outbreaks which were connected with those in the Lower Euphrates Valley, about Bagdad in 1867-1868; 1873-1874, and in 1877.

"In February, 1877, the disease, travelling eastwards, reached the province of Ghilan, on the Caspian sea, the chief town of which, Rescht, suffered a severe visitation. Between that town and the government of Astrakhan, there is considerable traffic over the Caspian, while with the inhabitants of Eastern Caucasia, who are of the same race, the inhabitants of Rescht are in constant communication, and carry on among other things a not inconsiderable smuggling trade in tea and silk. In such circumstances it is not wonderful if, as is credibly reported from several quarters, as early as May, 1877, and repeatedly since then at various spots in the government of Astrakhan, cases of sickness have been observed, the symptoms of which present great similarity to those observed in the present more violent outbreak at Wetlianka, though the course of the disease in the former cases was more favorable. In the case of a sporadic disease of this kind, the cause of the infection was attributed by the persons attacked to coming in contact with skins or hides from Persia.

"At Wetlianka the great outbreak was preceded by a series of less important cases of sickness. With the dry cold of November, the latter disappeared; but at the end of November and the beginning of December, the number of cases of sickness suddenly increased, and at the same time the violence of the disease rose to an extraor-

dinary and frightful degree. Almost all the patients—whose number is stated at about 300—succumbed after a brief interval, and the greater part of the surviving population fled to places in the neighborhood, thus carrying the germs of the disease abroad. Soon violent cases appeared in Nikolskoje, Udatschnoje, Michailowsk, and Staritzkoje; and when, at the beginning of January, a military cordon was drawn round the entire district affected, there were not less than nineteen places which had to be included—viz: on the right bank of the Volga, Staritzkoje, Kirda, Wladimirowska, Jenolajewsk, Ropanowskaja, Wetlianka, Gratschewskaja, and Tschernyijar: and on the left bank of the Volga, Udatschnaja, Michailowsk, Sasy-Ralskoje, Tambowka, and Selitrenoje. In order to secure Zarizyn, the terminus of the Russian railway system, from infection, a cordon was also drawn around it, beginning at Sredne-Pogkomnoje, on the left bank of the Volga, and passing through Werchne and Sredne-Achtribinskoje, over the Volga, near the flourishing German colony of Sarepta, and finishing at Ostradnoje. According to the latest reports, this cordon is carried round at the northwest, so that Zarizyn is shut out from all communication with the world except that by the railway.

“Since December 24th, the epidemic has abated in violence. Among the places enclosed in the cordon first mentioned, the only one in which fresh cases of sickness had been observed was Selitrenoje, on the southeastern extremity of the infected district. Since January 28th, however, several cases have occurred in Renselitzaja, situated outside the cordon, southeast of Selitrenoje. There, too, the authorities at once carried out the requisite measures for disinfection and isolation. It is announced that the authorities intend to destroy by fire all the houses visited by the epidemic. In the government of Saratoff, the authorities of which have established a cordon of isolation against the government of Astrakhan, no case of plague-sickness has yet been ascertained to have occurred, nor has any case been observed in any of the other Russian governments.”

Professor Virchow, of Berlin, has delivered an interesting lecture on the plague before the Medical Society there. He stated that as yet, no experience had been acquired relative to the treatment of the epidemic by modern scientific means and that the

results obtained by the old system were contradictory. "The Oriental pest," he said, "was raging at Astrakhan, and it must be distinguished from that of India, the characteristics of which have been described by Professor Hirsch. This latter disease is of two kinds: the "plague pali," which prevails in the western part of India and is epidemic, and that of the Himalayas which is also epidemic, but only rages in certain isolated places, from which it does not spread. The Oriental plague comes from Syria and is propagated in Mesopotamia, Persia, and on the banks of the Caspian sea. The precautionary measures taken by the German government are admirable and very extensive, but it is difficult for a large expanse of country to be placed in thorough quarantine. The Russian army which is returning to its home ought to be subjected to medical inspection; but during the last ten years the Russian doctors have often mistaken the plague for the spotted typhus. The epidemic now raging is not worse than cholera, but no doubt can exist as to its being contagious, and as the causes of that infectious character are not well known, a difficulty exists in indicating the objects, the importation of which should be prohibited. The treatment to be adopted may vary, but the patient ought to be isolated immediately and placed under the most favorable conditions possible. As for disinfection of clothes, bedding, etc., the most rational mode is unquestionably the application of dry heat as practiced in the German hospitals and barracks.

All the governments of Europe have taken the most decided measures to prevent the march of the disease, and there seems scarcely a probability of its breaking through the sanitary cordon by which it is now surrounded.

Doctor Planat, of Nice, reports the successful treatment of two cases of strangulated hernia with *ergot*. The first patient was a man aged fifty, and the strangulation had existed for several hours. Ergot was applied both externally and internally; and at the end of *five* hours, it was found that the vomiting had ceased, while, after the lapse of twelve hours, the hernia was spontaneously reduced. The second case was that of a man aged twenty-eight years, who had suffered for several hours with a hernia which resisted all the ordinary means of reduction. Ergotine was then tried, as in the previous case, as a last resort and with the very

best effect. Spontaneous reduction speedily took place, and the life of the patient was saved. Why the remedy was not introduced hypodermically, does not appear. Surely, if ergot possesses any value in this connection, the potency and celerity of its action would be increased by this mode of employment.

*A propos* of hernia, you must pardon me for saying, that in my long and varied experience I have never performed herniotomy, but in a single instance, having succeeded invariably—except in the one case—in reducing the tumor by *taxis*, and without detriment to the patient. This success is due exclusively to the fact that, in emergencies, I do not hesitate to employ more force in manipulation than most other surgeons deem advisable, and that I approach each case with the firm conviction that reduction is a possibility if the effort to accomplish it be made early enough and is persisted in.

*The Glycogenic function of the liver* as taught by Claude Bernard has just been very vigorously attacked by Dr. Pavy, of London. He denies that this organ is endowed with the power of forming sugar, independently of the starch and sugar taken into the economy, and of supplying it to the circulation in order that it may be turned off in the peripheral capillaries. On the other hand, he maintains that instead of being a sugar-making it is a sugar-consuming organ, and that during life only a very insignificant amount of sugar enters the blood from the liver. Dr. Pavy bases these conclusions on two important facts, viz. : that if the liver is placed at the moment of death in a condition to prevent the post-mortem elaboration of sugar, it is found really to contain only a small trace of that substance instead of the decided amount claimed for it by Bernard : and that when proper precautions are taken in making the estimate, the difference in the amount of sugar in venous and arterial blood is very small, the average amount per 1000 parts of blood, deduced from eleven observations, being 0.941 gramme for arterial blood and 0.938 gramme for venous blood. He has also shown that corresponding with this small quantity of sugar in the blood there is also a certain amount present in the urine, and that the amount eliminated in health is therefore expressive of the amount which actually enters the circulation. These views cannot fail to produce a profound sensation here for the opinions of Bernard have been universally adopted by his countrymen, since they



were originally promulgated with the seeming exactitude of a demonstration.

*The Thermo-Cautery* is now the rage in Paris. All kinds of operation are being attempted with it, and the *knife* is ignored to an extent that would scarcely be credited in America. Only recently I met in consultation a leading surgeon, who against my urgent remonstrance, attempted to open a large carbuncle situated in the posterior cervical region, with this instrument. Having made two fearful looking wounds, he was compelled to suspend his work without having reached the *foyer* of purulent matter; and, as the sides of these wounds remained glazed and seared, no pus could escape through them, and the patient was left in a far worse condition than he had been originally. After the lapse of three days, when the carbuncle had extended its boundaries in every direction and the peril to the sufferer had increased immeasurably, the surgeon was compelled to resort to the bistoury, with the result of promptly securing the discharge of a large quantity of offensive matter. Dr. Dubrenel, of Montpellier, reported to a recent meeting of the Surgical Society of Paris, four cases of amputation performed with this instrument—only one of which, however, had proved successful; and Professor Verneuil, declared in discussing them, that when an absolute necessity presented itself for the prevention of the loss of blood, he regarded the use of the thermo-cautery as justifiable. I am a little surprised that none of his colleagues reminded him of the utter failure which had attended the “Method of Maisonneuve” or called his attention to the fact that in the very cases where the conservation of blood is so important a desideratum, the advantages accruing in that regard from the use of the cautery, are more than compensated for by the dangers which present themselves on the other hand from purulent absorption. That the thermo-cautery is a valuable addition to the resources of modern surgery cannot be questioned, but surely that circumstance does not justify the attempt to push it beyond its appropriate rôle or to make it a “hobby” upon which to ride to notoriety at the expense of suffering humanity.

I cannot conclude this letter without saying a word in regard to a medicine which has recently been introduced into France by our enterprising countrymen, Messrs. W. R. Warner & Co., of Phila-

delphia. Among other specimens of their exhibit at the recent Exposition, their agent in Paris very kindly sent me several bottles of *Inglucin*—a powder prepared from the gizzard of the chicken,—with the request that I would give it a fair trial in the treatment of gastric irregularity and disturbance. I am pleased to be able to chronicle the fact, that, in three cases of pronounced atonic dyspepsia and in one case of chronic indigestion, it has acted like a charm—promptly relieving all disagreeable symptoms and restoring the stomach to its proper functions. My patients, who had previously tried without benefit all ordinary forms of pepsine, bismuth, cerium, nux vomica, &c., &c., are delighted with this new remedy and assure me that they experienced benefit from the first dose. Hereafter I shall prescribe it liberally and with great confidence in its therapeutie value.

Assuring you of my abiding interest in the success of the JOURNAL.

Very truly and respectfully yours,

EDWARD WARREN. (BEY) M. D., C. M.

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## OUR NEW YORK LETTER.

*Summary: Academy of Medicine: Dr. Dalton's Method of Mounting Specimens for Temporary Preservation; Dr. Noyes' Paper on "Diseases of the Eye in General Practice," and the Discussion Thereon: Conjunctivitis; Keratitis; Iritis; Glaucoma; Atropia Eserine; Dr. Pomeroy on Relative Accommodation. College Commencements—Defects in Methods of Medical Study, and some Suggestions Looking to their Improvement.*

NEW YORK, March 12th, 1879.

Dr. John C. Dalton, the eminent physiologist, reported to the Academy of Medicine, at its last session, a new method of mounting sections of the human body, by which they might be preserved for several days, without losing their natural form or color, so as to admit of their being examined at leisure, or used for purposes of

demonstration. The sections, which may be made of any desired size or thickness, are embedded, *à la boned turkey*, in warm fluid gelatine, and encased between glass plates. Dr. Dalton exhibited; and passed around for inspection, transverse sections of a human brain thus mounted, in which the natural features of color, etc., were perfect. There was no evidence of shrinking or other change; the relations of the gray to the white matter were as clear as in perfectly fresh specimens; and the various ganglia, convolutions and sulci were shown as satisfactorily, as immediately after a dissection. Specimens of other portions of the body, whether normal or abnormal, can thus be preserved, and if carefully mounted the package can be handled without fear of injury, and even transported for long distances for examination by experts. The report was regarded as a highly valuable one, and Dr. Dalton received for it a vote of thanks from the Academy.

At the same session, Dr. H. B. Noyes read a paper on "Diseases of the Eye in General Practice." The subject was ably and instructively handled, as was to be expected from one of the writer's well known ability; but I doubt whether any one of the general practitioners present, after hearing the paper, felt that they were better oculists than before. Unless the general practitioner gives himself the trouble to master the whole subject of ophthalmology, the best lesson that he can learn is that it is *always* safer to confide the treatment of eye trouble to the specialist. There are many symptoms, apparently indicative of nerve troubles, which often subject the unfortunate sufferer to a most vigorous kind of medical treatment, the pathogeny of which lies in some instantly remediable error of refraction. And so simple cases, or what appear to be simple cases, of conjunctivitis, are frequently treated with stimulating or astringent lotions, when the trouble exists in some other tissue of the eye to which such treatment may be positively pernicious. Inflammations of the cornea, or foreign bodies in the cornea, and certain forms of iritis may so closely simulate conjunctivitis as to be mistaken for it; but they will get worse under the treatment which would cure a conjunctivitis. The cardinal rule is to make an accurate differential diagnosis, and then for frank conjunctivitis use astringents, and for iris and cornea atropia, which is their medicine par excellence. In doubtful cases, use atropia

and thorough cleansing, and your conjunctivitis will get well ; and if there is corneitis or iritis these will have received the medication required for them.

In corneitis the indication is to prevent extension of the inflammation, and opacities of the cornea. If the epithelium is abraded, or if there is an ulcer, avoid acetate of lead. It is better never to use lead lotions in the eye, on account of the danger of their leaving permanent white spots which may seriously affect vision. Paracentesis at the corneal margin is often useful in diminishing the pressure upon the cornea from behind ; and the cornea is very tolerant of it. Atropia is thought to be an anodyne to the corneal nerves, but it is said to produce increased tension in the aqueous chamber, and may with advantage be at times exchanged for eserine which has an opposite effect in this respect. I am able to adduce from my private case-book, considerable support for this view, as I find recorded two instances in which the prolapse of Decemet's membrane, which had continued under the use of atropia, disappeared promptly when a solution of eserine was instilled ; and in several there was a relief from pain, which the atropia had failed to afford.

In iritis the effect of atropia (1 to 4 grs. to  $\frac{3}{4}$  i) is to dilate the pupil, and draw the iris away from the lens, thus preventing or breaking up adhesions between it and the lens, which constitute the great danger, both immediate and remote, in iritis. Dr. Noyes recommends and uses in purulent conjunctivitis, and in the ophthalmia neonatorum, solutions of nitrate of silver, sometimes as strong as ten grains to the ounce, the lids being everted for its application, and the excess of the agent neutralized by a solution of common salt. *Constant* cleansing, cold compresses, and, in some cases, when there is much swelling, and the lid presses upon the eye ball, a canthotomy, constitute the line of treatment. A canthotomy consists in the prolongation of the palpebral slit outwards. It is very easily performed, and is rendered much more effective if Dr. Agnew's supplement to it—the tenotomy of the so-called external canthal ligament—is done at the same time. The method of dividing this ligament is simple: after having made the canthotomy proper, seize the upper lid between the thumb and forefinger of the left hand, and by slight traction upwards and inwards it will be

found that a small cord holds the tarsal cartilage down to the outer angle of the orbit (this can be felt in one's own eye), and it can easily be caught in the "bite" of the scissors and snipped. Immediately the upper lid is released and presses no longer upon the globe. This is a decided improvement and renders a canthotomy in trachoma or pannus far more beneficial. Dr. Knapp does not favor the use of nitrate of silver, or only uses weak solutions (never stronger than three grains to the ounce), and avoids canthotomy. My own experience leads me to hold with Dr. Noyes in both of these particulars. As indicated by Noyes, and very forcibly also by Dr. Webster, one very important point for the general practitioner is to be able to recognize glaucoma, as this disease tends speedily to extinguish vision, unless it is promptly treated, when it may be one of the most manageable of the grave disorders. Its main features are an increased tension in the eye ball, severe pain in and around the orbit, and subjective photopsias (flashes of light and prismatic colors, especially around a candle flame), and rapidly (in a few moments or hours) fading vision. Iridectomy is the great and successful remedy, but the practitioner, if he mistrusts his skill for this, should use eserine (gr. i. to  $\frac{3}{4}$  i.) both to gain time, and because cures from its use have been reported. A drop or two of such a solution should be instilled every hour. It is supposed to act beneficially by restoring the equilibrium between secretion and absorption or transudation from within the eye ball, and thus relieves tension. In the discussion of Dr. Noyes' paper, Dr. Pomeroy, an accomplished ophthalmoscopist, made an interesting statement of his power to suspend his accommodation at will—and even advised that those, especially young people, who were able to do likewise should make use of convex glasses (1-16th) for reading, if they ever suffer from asthenopic symptoms. Now let us see what this implies. Dr. P., like every one else, in making ophthalmoscopic examinations by the direct method, looks at the image as if it were at a distance; i. e., his visual axes remain parallel and his lens accommodated for  $\infty$ .

This involves no disturbance of the coördination between convergence and accommodation. The only effort required is to look with one eye, and to disregard the image of any object which happens to be in the line of vision of the other eye.

Optically speaking, the *observed* eye is accommodated for the *observing* one, and if it is not, the observer does not see clearly, unless he calls to his aid the proper lens from the series which now constitute a part of every ophthalmoscope, or himself accommodated to the requisite extent.

It is an accomplishment gained by long practice, which enables Dr. P. to focus his eyes for a remote point where he converges for the twelve or fourteen inches, and constitutes a very unusual instance of a great range in the so-called negative part of the relative accommodation. I think, however, it is hardly more than an optical trick, so to speak, and is not to be made useful for reading purposes by asthenopes, as Dr. P. recommends.

There is little general medical news with which to pad out my letter. The three great colleges have held their commencements; and turned out nearly 500 new doctors into the already overfilled ranks of the profession. Whither they go can no more be said of them than of the wind whither it goeth; but they disappear like the rain drops which are swallowed up in the broad bosom of the ocean. The addresses to the graduating class were unusually good—particularly the one to the University students, delivered by Rev. Dr. Crosby.

The students being gone, the professors unbend from their professional gravity, jingle the proceeds in their professional pockets, smile their professorial smiles at each other, (as Dr. Johnson said all M. D.'s do when they meet), eat the usual alumni dinner, and discuss over their libations the best method for catching the little fishes of the next winter.

The chairs in the several colleges are filled by able men, who discharge their duties conscientiously, and even with enthusiasm, and probably understand well how to impart the greatest amount of knowledge in the shortest possible time. I cannot say how nearly the examinations for the degree fulfil their purpose of disclosing whether the postulant is really qualified to practice medicine. But I am pleased to note an advance in this respect in at least one of the colleges, which this year submitted a series of questions to be answered in writing, and which were quite well adapted to test the qualifications of the candidates. With all of the enormous clinical advantages in this great city, it seems to me that they can be availed of by students to a limited extent only.

Although, in the annual circulars of the colleges, there is a meretricious parade of the many hospitals, with their thousands of beds, yet practically the hospital clinics are limited to Bellevue and Charity. These are, it is true, both very large but of the 500 second or third year students only a very small number can have access to the wards, and follow cases of disease to the end: and students are seldom brought into such close and renewed relation with patients as to be able to observe for themselves. This, perhaps, is remedied to a certain extent by the college clinics, which, though excellent, do not supply what the student chiefly needs when he enters practice. The most efficient means of remedying this defect (which is perhaps not wholly remediable, with the present curricula) are in the private practical instruction, which is given by men as competent as any in the world; but unfortunately the small additional expense of these courses greatly limits the number of students who follow them. There are serious faults in the didactic methods which in a great measure impair the value of the clinics and give the metropolitan colleges little advantage over others whose students are fewer and which control their own hospitals. Second course students whose time should be devoted, as far as practicable to the bed-side application, of what they may have in previous years acquired at the lectures or from books, are forced, through fear of failing at the final examinations, to sit upon the benches with the first course men during so many long hours that they are rendered incapable of giving the attention to the hospital clinics which they should; or they are, by the tempting offer of prizes for anatomical or surgical preparations, seduced into spending too much time in the dissecting room, which should have been the theatre of their best efforts in the earlier days of student life. This is manifestly a vicious distribution of the short time devoted to study. But the defect is one that may be easily remedied, either by the consentaneous action of all the colleges or by the independent course of any one. Let students be encouraged to devote their first annual course to the anatomical room, and let all the prizes for excellence in dissections be open only to those who do not propose to offer for graduation at the ensuing commencement. At the end of the first course let examinations be held upon certain branches, upon which, if the student passes suc-

cessfully, he need not be again examined. In these branches should be included anatomy, physiology, materia medica, chemistry and such other of the collateral sciences as may be deemed expedient. Certificates may be issued, or a record made of the successful examinations, to be, by common consent, valid evidence from one college to another, and if universal coöperation in the plan could but be secured, the effect would be to bring the student back to the same college for his final course. And this is desirable no less for the student than for the college. This plan is perfectly feasible without altering the existing methods or policy of any college. It would greatly enhance the value of the instruction given, and leave the student free, during his final course, to pursue and fix that kind of practical knowledge of which he stands most in need. It is hardly necessary to add that if any student, should fail upon any branch at the pass examination, he would not thereby be debarred from again presenting himself on the same branch after the final course. The facilities might be even further enlarged by holding "pass" examinations in mid-summer, and thus the desirable consummation reached of having the period of active continuous study cover nine months instead of five with the very pernicious interregnum of idleness extending from February to October. This scheme does not imply that the student is to take out tickets for a partial course only, for the first year. Admission to the pass examinations need not be given until payment has been made for one full course, at least which, in many instances, might not be until the end of the second winter.

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Prof. Ledoux's article promised for this number will not appear until April. In the mean time those who have made applications for the number will have their requests noted and attended to. The State Board of Health will issue it as for information of the people.

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*Scalding Water to the Feet to Antagonize Opium.*—Dr. N. L. Folsom, of Portsmouth, reports in the *N. H. Journal of Medicine*, (1858) a case of recovery from opium poisoning, in a child six years old, by the application of scalding water to the feet.—[*N. C. MED. JOUR.*, Vol. 1, pages 78 and 79, 1858.] The above remedy about twenty years later was re-discovered.




## EDITORIAL.

### NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED  
IN WILMINGTON, N. C.

M. J. DEROSSET, M. D., New York City,     { Editors.  
THOMAS F. WOOD, M. D., Wilmington, N. C.     }

 *Original communications are solicited from all parts of the country, and especially from the medical profession of The Carolinas. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to our JOURNAL, by sending the address to this office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with rigor and acceptability. All remittances must be made payable to DEROSSET & WOOD, P. O. Box 535, Wilmington, N. C.*

### THE PASSAGE OF THE BOARD OF HEALTH BILL.

It is a matter of sincere congratulation to the medical profession and the public at large, that the General Assembly passed the bill recommended by the Committee of the Medical Society of the State, although with some modifications.

From the beginning of the movement it was clearly evident that the work could not be brought to a successful issue without the aid of the press, and it was not reasonable to suppose that the secular press could devote much of their space to the topics to be discussed, or present them in such a shape as to influence the medical profession in a body. Realizing the necessity of arousing the medical profession to a concerted effort, the NORTH CAROLINA MEDICAL JOURNAL was mainly instituted. While this JOURNAL has endeavored to put before its readers a fair exposition of the medical sciences, it has addressed itself with especial ardor to the promotion of the cause of the public health and the passage of health laws.

The bill as it passed was first outlined in this JOURNAL. No doubt it can be successfully criticized for its imperfections, but none were more aware of these than the committee charged with its execution. It was clearly evident that our bill to stand any chance of being adopted by the Legislature must not call for too much aid, while at the same time, to suit the temper of that body it must promise to do a great deal of work.

The committee which had been struggling for two years under the first bill, (whose provisions were vague and uncertain, and from which could be derived no authority to do anything, and with only a pitiful one hundred dollars a year,) was not to be deterred from assuming any reasonable amount of work, if increased means and powers were granted. They realized that if the State would consent to organize and pay county superintendents, the greatest part of the machinery would be perfected: and with a few hundred dollars a year, and printing and stationery for the State Board, they would patiently undertake a work, the rudiments of which they only knew in theory.

The question with the committee was "What can we get?" not what we would like to have, and considering the mania for retrenchment that pervaded and unreasonably, at times, influenced so many members of the late Legislature, the success of the committee is all that could reasonably be expected. With this as an entering wedge the future is full of promise. The responsibility too is great, we should remember, and we call upon the profession throughout the State to come up promptly to the support of the officers who will have the execution of the new work in charge.

We are satisfied that the law has a vital force, the best assurance of its success being that the County Superintendents of Health are paid for their work, and are under penalty for delinquency in sending in their reports.

A full meeting of the State Medical Society at Greensborough in May is earnestly desired, that the best men in the profession in the State should be selected in composing the new State Board.

We must have working men, who, from May to May, will be busy in patient and laborious research, and we are satisfied that six competent men will be selected. As the machinery of our Society is now reaching out in a field well worked in other States, making a

comparison of results easy, the reputation of the Medical Society of North Carolina will be more than ever at stake. Let us accept our new work in a spirit of earnest determination to do it well, and our work well done will be our argument before the next Legislature for increasing means.

We desire in this connection to express our acknowledgment to Gen. J. M. Leach of the Senate and Captain R. B. Davis of the House, for their earnest and successful work in behalf of the bill; and thank also our friends of the religious and secular press, especially the *North Carolina Presbyterian*, the *Hillsborough Recorder*, the *Raleigh Observer*, the *Wilmington Review*, *Sun* and *Star* for the manner in which they have sustained our efforts.

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### POND'S IMPROVED SPHYGMOGRAPH.

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Among the most useful and improved means of diagnosis is a very sensitive and delicate sphygmograph bearing the above name.

The physician can observe with accuracy any changes taking place in the circulation.

It is a ready means of accurately recording all that takes place in the patient's system during the progress of disease, by means of the pulse changes or modifications of the circulation.

It extends the knowledge in prognosis by marking the delicate changes hours before it can be perceived by our senses in the ordinary way.

You can secure the patient against heretofore unforeseen fainting or collapse. Impending paralysis are made known as has been shown in the hands of Dr. Pond by a difference in the pulse of the opposite sides of the body previous to hemiplegia. Dangerous complications arising in scarlet fever, diphtheria, measles, &c., can be earlier discovered, viz.: the prealbuminuric stage of acute Bright's disease. There is little doubt but that if used in yellow fever it would give the true type of the disease and furnish valuable suggestions in treatment.

No other means has been found so simple and practical in delineating the real history of disease. It furnishes a complete and

perfect picture of the state of the patient from time to time to be placed in comparison from day to day. It should be in the hands of every one who makes the study of the sick his vocation.

Every physician is convinced of the value of the sphygmograph, the question is the proper instrument, and this problem has been admirably solved by Dr. Pond's new Sphygmograph. We commend this instrument to those of our readers who are desirous of possessing a sphygmograph.

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*Laparo-elytrotomy.*—This is the first case in Europe since the revival of the operation by Dr. T. Gaillard Thomas. The patient was aged 37 years, was pregnant for the ninth time. Four living children. She was a drunkard. The recto-vaginal system was converted into a cancerous mass, and labor *per vias naturales* impossible. Dr. Heine assisted by Drs. E. Jackson, and O'Keefe performed the operation of laparo-elytrotomy on Sunday, July 14th, at 6:30 P. M. Modified "Listering" was employed. The incision was made through the abdominal wall from above the spine of the pelvis to the anterior superior spine of the left ilium. The peritoneum was raised, and the vaginal wall pushed up by a probe passed up the vagina. It was seized with a hooked forceps and divided. A finger was passed through the wound into the os uteri, which was occupied by the head and bag of waters. A foot was seized, version effected, and a living male child delivered. The placenta followed almost immediately. The uterus contracted without hemorrhage. The operation lasted a little over twenty minutes. The wound was washed with a five per cent. carbolic solution, closed with gut sutures, and covered with antiseptic dressings. On partially recovering from the operation she became violent and abusive. Three persons were necessary to hold her down; she died about two hours after. At the necropsy, a clot about the size of a couple of walnuts lay in the bottom of the wound. The bladder and peritoneum were quite uninjured. The uterus was healthy and contracted. The os and cervix uteri were free from laceration. There was no cancerous disease in the upper part of the vagina. This case was a deviation from Thomas, Skene and Edis operation, in that it was done on the left side.—*London Medical Record*.

## REVIEWS AND BOOK NOTICES.

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THE NATIONAL DISPENSATORY, containing the Natural History Chemistry, Pharmacy, Actions and uses of Medicines, including those recognized in the Pharmacopœias of the United States and Great Britain. By ALFRED STILLÉ, M. D., LL. D., etc., and JOHN M. MAISCH, Ph. D., etc. With 201 illustrations. Henry C. Lea. Philadelphia. 1879. 8vo. Pp. 1628.

The space at our disposal will permit of very little more than a brief notice of this work. Its scope is fully made known on the title page, which is given above in full, for the benefit of our readers. It has been prepared by two gentlemen whose learning fully qualify them for the difficult task, and whose eminence entitle them to be heard with the respect and attention due to authority.

The *raison d'être* of the book is modestly stated in the preface, and now that it has been published and opens to us its vast stores of information, we may add that it was almost a necessity; and this we say without meaning to impugn the great excellence of the works of similar character which have preceded it. The extent of the work precludes our dealing separately with its many topics—the more deliberate quarterly Reviews will monopolize that kind of notice, and we must be satisfied with speaking of its general arrangement and such features as are peculiar to it.

The authors have not followed the plan adopted in the U. S. Dispensatory of separating the *Materia Medica* proper from the pharmaceutical preparations; but have preferred an unbroken alphabetical order of the superiority of which, as facilitating reference, there can be no doubt; for we well remember the many losses of precious time we have suffered in turning from one to the other part of the U. S. D., in search of items which would have fallen immediately under our eye had there been no break in the arrangement.

All of the descriptions, whether medical, botanical or pharmaceutical, are clear, in good English, and unencumbered with obsolete and unintelligible terms. Those portions which have reference to therapeutics form a convenient treatise on that subject, and are made the more valuable and available by a complete therapeutical index. In pharmacodynamics, which topic embraces the

physiological effects of medicines, all that is known, and, we may say, much more, is given in lucid language, and where it has been possible to deduce from experimental physiology reasonable therapeutic applications, Dr. Stillé (for it is evidently he who had charge of this part of the work) has not omitted them, and what he has written is a good resumé of what is known of that "youngest born of medical science," which Fothergill and others have been rearing with so much assiduous care. The purely pharmacal part of the book is as perfect as it is possible to make it—and less could not have been expected when we consider Prof. Maisch's great qualifications for work of that kind. Pharmacists well known that for many years he, with the late Mr. Proctor, has stood at the head of his profession, and it is rather customary among them to accept as a judicial utterance whatever he says upon mooted points in their department.

The work seems to have been brought up to date in every respect:—we find allusions to all the new remedies, such as duboisia, sclerotic acid, etc., an account is given of their physiological action as far as developed. The new notation has been adopted in expressing chemical formulæ, and it is to be presumed that the new nomenclature likewise would have been given preference over the old, except that perhaps it was deemed unwise to be in advance of the officinal pharmacopœia in this respect.

Seeing the general tendency to the use of the metric system in weights and measurements it is, to our view, a misfortune that the dosage was not given in grams and its fractionals, in the body of the book. It is true a table is printed in the appendix, which states in both systems, the *maximum doses* of a number of substances: but as good as this is, it is limited in its value, and can never have an equal effect in preparing both professions for the coming change with that which would have followed the adoption of the metrics into the text. The acquirement of the new system would be much easier to us had we never known the old, and we are therefore prepared to state our belief very radically, to the effect that it would have been much better to have left the old apothecary's weight out of the book entirely, or to have relegated it to the appendix, there to remain through an edition or two, as a reminder of the folly to which we have clung for nearly an entire century. Formulæ for

writing prescriptions in metric terms are given in the appendix, in which the symbol GM, underscored, is placed *after* the figure denoting the quantity intended, whether grams, decigrams, centigrams or milligrams, the four latter being preceded by a decimal point. We trust that in the next edition the authors will see fit to recommend in the place of that method the one suggested by the Metric Bureau, of Boston, in which the decimal *line* is used instead of a *point*, thus leaving little room for error, either in writing or reading.

We should not forget to speak of the illustrations as particularly useful for pharmacists and for practitioners who rely by choice or necessity upon their own collections : the shapes and markings of the leaves, fruits, tubers, roots and rhizomes are given true to nature, and accompanied by plain and faithful descriptions, will serve as a safe guide in their collection and preservation. Of course pharmacists and reading doctors will have this book : and to those members of the medical profession (if there are any) who only need one book we would say, (as mean a ground as it is to put it on) that the National Dispensary can dole out to them all the knowledge that they are apt to call for. The book is too weighty to be sent through the mail, and, therefore, special instructions must be given for its shipment when ordered.

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A MANUAL FOR THE PRACTICE OF SURGERY. By THOMAS BRYANT, F. R. C. S., etc. Second American from the third revised and enlarged English Edition. Philadelphia. H. C. Lea. 1879. Imperial. Svo. Pp. 945.

To the general practitioner the question as to which of the many works on surgery is best adapted to his requirements is, unfortunately too often, a perplexing one : and, more than unfortunately, it is too often answered by a quiet falling back upon the time-honored manual which bears the thumb-marks of the student period. The attempt to practice surgery, or as to that, any branch of medicine, with only one book, from which all knowledge is drawn, it is needless to say, betokens an ignorance on the part of the surgeon of his own wants. As well might he limit his surgical armamentarium to a single dressing sponge. The question should be not as to what we *require*, but whether our requirements may not be so enlarged

as to be met only when we have access to every thing that the best men in every branch have written.

Surgery is progressive, advancing daily not only as an art but in its scientific range, and, thanks to the intelligent recognition of this fact by such accomplished purveyors as Mr. Lea, we are able to follow promptly its advance step by step. No word of praise would be misplaced in speaking of Mr. Bryant's manual. It is the outcome of a rich, ripe experience gained amidst the boundless resources of Guy's and rounded off by an intimacy with whatever has been made known in every part of the civilized world. The scope is comprehensive, if not exhaustive, and in those departments in which the attainments of perfection involves special study, the work has been committed to specialists.

The language is concise, yet conspicuous; the descriptions accurate; the illustrations intelligible, and quite fulfil their purpose. Of course, Mr. Bryant has views of his own on many topics which exhibit considerable divergence from those held by most American authorities; but so far from this detracting from the value of the work it is, to our understanding, something to recommend it, because it tends to lessen the value of the ideals which we may have set up for ourselves, and leaves us in a quasi-judicial attitude when we come to deal with our own cases; and, after all, the personal enlightened judgment of each one of us should be the final arbiter whenever grave responsibilities present themselves. And how can our judgment be enlightened, and discriminating unless founded upon the broadest knowledge! Perhaps we may find some fault with Mr. Bryant for his slight of American surgery and surgeons, since in his preface he says his aim has been to represent not so much his own opinion as the position of surgery at the time of his writing. This idea, it seems to us, should have led him to take some note among other things of Bigelow's litholapaxy, now more than a year before the profession; of Otis' urethrometry and urethrotomy; of Van Buren's method of overstretching the sphincter ani for fissure; of Emmet's valuable contributions to the surgery of the cervix uteri and sphincter ani. And it would not have been amiss to include some accounts of Thomas' laparoclytotomy, and of Porro's supplement to the Casarian section—for these are topics no more alien to a work on general surgery, than



is ovariectomy or phakotomy which receive more than a superficial treatment.

We have no space to admit of an enumeration of the general excellence of the work, but would mention especially the introductory chapter as of interest to the general practitioner in inculcating the importance of diagnosis founded upon facts instead of probabilities or conjectures; and in its comprehensive instruction upon the investigation of cases. If our country brethren were as methodical and painstaking in recording their cases as are the specialists of the larger cities they would have a rich and valuable store from which to purvey for the provincial journals, thus enabling them to render *quid pro quo* to the metropolitan publications.

The letter press of this large volume is clear, neat, and singularly free from errors—a condition hardly attainable unless under the supervision of such a publisher as Mr. Lea.

I. REPORT OF THE BOARD OF HEALTH OF THE STATE OF NEW JERSEY, 1878. Pp. 247. Trenton, N. J. 1878.

II. SIXTH ANNUAL REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH OF THE STATE OF MICHIGAN, for the fiscal year ending September 30th, 1878. Pp. 355. Lansing, Michigan. 1878.

1. The volume of the New Jersey Board embraces many articles of interest. The first one of them, a "Report on the Disposition of insane Criminals, by a committee composed of two members of the State Board, Dr. Cyrus F. Brackett and Ezra M. Hunt. After collating opinions from many sources the committee is inclined to think treatment of criminal insane would be best done in an annex to the already established insane asylum, and to this should not be attached the odium of a convict hospital.

Dr. Ezra M. Hunt gives a "Report of an Outbreak of Enteric Fever at the State Reform School, Jamesburg, N. J." This paper is illustrated with a diagram showing the ground plan of the Reform school with its sewerage, water supply, and privy.

The cause of the disease was made out by Dr. Hunt to be due to infection resulting from ill-constructed sewerage, and water contaminated with organic matter apparently of animal origin, and an abnormal quantity of the chlorides.

Dr. H. congratulates the Superintendent for the promptness with which he remedied the evils.

The article on "Springs, Wells, and Cisterns as Sewers of Drinking Water" is by Prof. H. B. Cornwall, E. M., and is worthy of careful perusal. It can hardly fail to instruct its readers about the least known of all hygienic conditions.

The article on Vaccination by E. J. Marsh, M. D., failed to bring the subject up to its last development. He seems only to favor "a resort to animal vaccine virus" "if doubt, fear or prejudice still continue on the part of physician or patient," whereas if the history of vaccination for the past fifteen years has taught preëminently one thing, it is that the employment of animal virus alone has restored Jenner's discovery to all of its pristine usefulness.

We are glad to see that further on, Dr. Marsh points out how the old difficulty of obtaining sufficient "matter" for vaccinating in case of a enormous and sudden increase of applicants for vaccination.

Veterinary Report.—The Board has added a veterinary department to their work, and the good possible to be done by such an addition is too obvious for further mention.

The volume concludes with a report of the Medical Superintendent of Vital Statistics.

II. The volume of the Michigan Board presents a greater variety of subjects than is treated in the volume just noted, and is of a more practical character. Some of the subjects treated of are "Special Reports and Communications, Outbreaks of Typhoid Fever and of Scarlet Fever, Sickness due to Emanations, Sickness due to Contamination of well water from a slop drain, &c.;" "Illuminating Oils, Explosive Lamps, Breaking of a Lamp and Death of two Women Thereby;" "Lead Poisoning from the use of Tinned, Glazed, and Enameled Ware: Report by Prof. R. C. Kedzie;" "Cancer not caused by use of Tomatoes;" "Wood Pavements and Wood Sidewalks on Public Health;" "The Opium Habit in Michigan;" "Diphtheria: Special Report of three Malignant Outbreaks, and Document of State Board Concerning the Restriction and Prevention of Diphtheria;" "Preservation of the Teeth," &c.

The article which will attract the most attention in this volume, is the one entitled "A Study of the Climate of the lower Peninsular of the State of Michigan," by Dr. Henry F. Lyster. The

geology of this section of the State is given, and illustrated with a map. The topographical features are illustrated with six diagrams, founded upon the railroad surveys. Map number VIII gives the Forests, numbers IX and X, Temperature Charts, number XI, Rain Chart. This excellent paper is worth a great deal intrinsically, but for its suggestiveness, showing the possibilities of a more extended application of Dr. Lyster's treatment, it will serve an admirable purpose beyond the limits of his State.

The Michigan Board of Health has taken up the matter of illuminating oils in the most practical ways and we believe it will not be long before other States will follow the example so industriously pursued by them. If ever a law was needed to be enforced with rigidity, it is the one which forbids the use of light illuminating oils. They are, without exception, highly explosive. The Michigan Board is empowered to condemn oils not withstanding the flash test of 140° F.

In only one matter do we find the machinery for the regulation of the profession better in our own State than in Michigan, and that is in licensing practitioners. We have been fortunate in having very few homœopathic physicians in this State, and, therefore the oppositions to our efforts has been small. It is incredible that in a State with over a million of people there is but one homœopathic physician, but as far as we have been able to learn this is the case in North Carolina.\* In Michigan, the Hahnemannists are plentiful, and the Board will be exceedingly fortunate if they succeed in carrying their point, in regulating the practice of medicine.

The report of the work done in the Secretary's office shows Dr. Henry B. Baker to be one of the most industrious and pains-taking officers of Health in this country. The small and numerous details which he has originated in his office, will save secretaries of new boards an immense labor, and we thank Dr. Baker in advance for the use the North Carolina Board intends to make of them.

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\*Dr. Wm. E. Freeman whose death was noticed in February JOURNAL.

YELLOW FEVER. By THOMAS O. SUMMERS, M. D. Professor of Anatomy and Histology in the University of Nashville, and Vanderbilt University. Nashville, Tenn. : Wheeler Brothers. 1879. Price \$1.00.

This little work of seventy-two pages is divided into four chapters on the *Etiology, Pathology, Clinical History, and Treatment and Prophylaxis.*

The one point of etiology, Dr. Summers lays much stress upon is the atmospheric condition; "From patient and careful analysis" he writes (p. 10) "of the atmospheric relations in those places where the disease has prevailed, as compared with those places of the same latitude where it has not, I am well assured, that by the use of the hygrometer we shall in time be able accurately to determine during any one season whether or not any given place enjoys immunity from yellow fever."

Again "I have not the slightest doubt that the external conditions for the development of yellow fever may be found in the atmosphere alone; nor do I believe that any amount of hygienic regulations can do more than indirectly modify the propagation of the disease by placing the subject of infection upon a more healthful basis from which resistance to its influence may be more successfully offered. I should be far from discouraging sanitary measures \* \* \* \* \*; yet cannot but accept the fact, as it is forced upon us, that this terrible scourge is one of the powers of the air, and cannot be resisted except upon those general physiological principles which lie at the basis of all medical sciences."

As to the specific germ he says "All that can be discovered to establish the specific and nature of the disease is gathered from the presence of microzymes in the blood \* \* \* \* \*. We encounter bacteria, vibriones, torulae, monads, but never a germ which specifically determines the characteristics of the fever."

Of the germs he says: "the atmosphere is at all times charged with them, but they do not become infections unless the relations of the heat and moisture in the air sustain a favorable relation to sporulation, or fructification. \* \* \* \* \*. These conditions are found in a malarial atmosphere."

This apparently gives the key to the author's reliance upon the moisture of the atmosphere, inclining in his argument to the germ theory, although he denies it in his summary.

He answers the question decidedly in the negative—"Is yellow fever contagious?"

That it is not necessarily an imported disease. "If malaria is an indigenous disease; then is yellow fever also, since it requires only this intensified malarial influence to furnish the groundwork of its development."

His own conclusions are:

1. Yellow fever is a zymotic, or fermentative disease.
2. It does not depend upon a specific germ.
3. It is ushered in by a train of intensified malarial influences which gradually glide into specific fever.
4. It depends for its development upon the atmospheric relations of heat and moisture.
5. It is not a contagious, but an infectious disease.
6. It is a disease which may at any time spring up in Southern latitudes indigenously, whenever the atmospheric conditions are favorable."

Of the pathology of the disease, Dr. Summers is at variance with La Roche in some respects, and is as full on these points as we could desire, and we wait until all the pathologists have published their notes on the diseases before we can justly institute a comparison.

Dr. Summers writes positively against the use of quinine in yellow fever, in his experience and that of his medical brethren, "it was found not only not beneficial in its effects, but utterly disastrous."

His entire treatment is simple enough, and apparently rational. He regards the use of water baths and sponging and the wet pack in the pyrexia of the disease as promising good results. "Not a man among us" he writes "had the courage to carry out [cold water] the treatment, though I have yet the first one to meet who does not endorse it as rational. Water is the remedy in yellow fever."

The author is pronounced in his opposition to a general quarantine, and to the National Quarantine movement.

We have already devoted space enough to show our readers the aims of this essay, and as all interested in this absorbing topic will read the book, we commend it to their attention while we wait, as they will wait until the whole mass of material has been brought before the profession and analyzed.

SYLLABUS OF A COURSE OF TWENTY-FIVE LECTURES ON HUMAN PHYSIOLOGY AND HYGIENE. Delivered at the University of North Carolina. Spring Session. 1879. By FREDERIC WILLIAM SIMONDS, M. S. Professor of Geology, Zoölogy and Botany.

*Lecture I.*—1. Nature of cells and cell growth. 2. Tissues of the body. 3. Bones, their composition, structure and mode of development. 4. The skeleton. 5. Treatment of fractures: head. Collar-bone, ribs, arm, hand, foot, thigh and leg.

*Lecture VI.*—1. Properties of the blood. 2. Composition of the blood. 3. Fibrine—its properties. 4. Anatomy of the heart. 5. Action of the heart. 6. Comparison of hearts of fish, reptile and mammal.

*Lecture XIII.*—Reproduction and Hygiene of the Reproductive Organs.

*Lecture XVII.*—1. Characters common to the brain of all Vertebrates (excepting *Amphioxus*). 2. The Mammalian brain. 3. Structure of the human brain. 4. Functions of the cerebellum and how they have been determined. 5. Functions of the cerebellum.

*Lecture XV.*—1. Choice of a dwelling site. 2. Drinking water. 3. Necessity of sanitary regulations in cities and villages. 4. Disinfectants. 5. How to maintain health. 6. Care as to food and habits. 7. Conclusion.

We have selected here and there the captions of these lectures, to show their scope.

Physiology and hygiene have been greatly neglected in the education of our young men, and the students of the University may consider themselves fortunate in having this rather rare opportunity of learning something about themselves. With our experience with young men (and young women too) we believe there is no subject upon which the best educated of them are more ignorant than the functions of the body, and especially of the function of the generative organs. A thorough understanding of these matters would greatly tend to overcome many of the extremely erroneous traditions which seem to be the heriloom of both sexes, to the great detriment of the physicians when these young people become their patients.

CLINICAL LECTURES ON DISEASES PECULIAR TO WOMEN. By LOMBE ATTHILL, M. D. University Dubl. Fifth Edition. Revised and Enlarged. With illustrations. Philadelphia. Lindsay & Blakiston. 25 South 6th street. Price \$2. Pp. 342. Svo.

That a work can make such good headway as to reach its fifth edition in face of the admirable American and English works on the same subject, is a good criterion of its merit. The former editions have met with words of approbation from many of the best journals in this country.

The author in his preface declares that the object he had in view "was not to supply practitioners and students with information already within their reach, in recognized manuals of surgery, but to furnish them in the limits of a moderate-sized volume, with such an account of the diseases] peculiar to women, brought up to the standard of the most recent period, and verified by my personal experiences, as would meet their wants, and tend to the more general diffusion of a knowledge of these common, but unfortunately, much-neglected affections."

The seventeen Lectures which make up this volume cover a large part of the field of gynaecological practice. viz.: Leucorrhœa; Amenorrhœa; Dysmenorrhœa; Menorrhagia; Mucous, Cystic and Fibrous Polypus; Fibrous Tumors; Inflammation of the Cervix Uteri; Displacements of the Uterus; Enlargements of the Uterus; Cancer; Ovarian Cystic Disease; Uterine Therapeutics.

In the treatment of fibrous tumors with ergot hypodermically, Dr. Atthill gives his experience. After trying several methods of using ergotin and extract of ergot from different chemists, following the plan of Hildebrandt, and all the writers who had employed the drug hypodermically by mixing it with glycerine and water, he concludes that the addition of glycerine is most injudicious. He finds that the hypodermic injection of ergot is most efficacious in restraining uterine hæmorrhage depending on the presence of a fibroid, and that the treatment is not altogether unobjectionable. Three of his cases had troublesome abscesses, while in a fourth he was obliged to abandon the treatment on account of the pain it caused. Since omitting the glycerine in his injections he has had no abscesses. Unless the patient can remain at rest, he does not recommend the hypodermic employment of ergot. Further on he

says : " You will gather from what I have already said, that I am not an advocate for surgical interference in cases where large uterine fibroids exist, if it can be possibly avoided. My reasons for arriving at this conclusion are two-fold, namely, that the majority of such cases go on tolerably well for years, and that if by plugging the vagina, by the hypodermic injection of ergot, or the use of other means, at our disposal, we can check profuse menstruation where such exists, there is every probability of the patient's condition improving when she arrives at the climacteric period, and when the uterine functions cease to be actively performed." Page 158.

The chapters on Uterine Therapeutics will be as freely consulted in this manual as any other, and its suggestions as to appliances seem to come from a vast store of practical knowledge.

Of the employment of cold he says : " Without doubt the application of cold to the spine has sometimes a marked effect in lessening the distressing sickness experienced during pregnancy. Doubtless, too, it is a remedy which frequently fails to effect good ; but it is nevertheless a valuable one ; let me, however, urge on you the necessity of caution, for I am by no means sure that it is not capable of producing abortion. There is one other method of relieving the suffering so constantly experienced in cases of uterine disease by external means, which it is well to bear in mind, and which I urge on you not to despise because of its simplicity, or because it is recommended by a class of men whose practice is not in general worthy of imitation. I allude to the wet abdominal bandage. It is usually applied by dipping one-third of a calico bandage, three yards long and a half yard wide in water ; the wet end is applied around the pelvis and the dry part rolled outside it so as to prevent the patient's sheets, or, if worn in the day time, as it can easily be, her clothes, from being wet. This is especially useful in allaying pains depending on ovarian congestion or irritation, and, indeed, is beneficial in all cases of uterine disease." Page 313.

The publishers have brought out this work in an attractive manner, leaving nothing to be desired in the way of typographical execution.



REPORT OF L. L. POLK, COMMISSIONER OF AGRICULTURE. For 1877-'78. Pp. 51. Raleigh Observer. State Printers and Binders. 1879.

ANALYSES AND VALUATION OF FERTILIZERS. For 1877 and 1878. Reported by DR. ALBERT R. LEDOUX. Director of the North Carolina Experiment Station. Chapel Hill, N. C. Re-published by order of the Board of Agriculture. L. L. POLK, Commissioner. Pp. 14.

FISH CULTURE IN NORTH CAROLINA. Report to the Commissioner of Agriculture. By S. G. WORTH. Pp. 26.

1. Many of our subscribers are aware of the efforts being made by the State in the interests of the farmers; and many of the doctors in this State, (unfortunately), have to divide their time between the practice of physic and farming, so that to no class in the workings of the experiment station a matter of greater interest than the medical profession.

We learn from Col. Polk's report that in the Neuse, Catawba, Yadkin, Haw, Tar, Nottoway, Roanoke, Meherrin and Chowan rivers and other streams, that 3,902,400 young shad were deposited in 1877 and 1878. Of California salmon, 234,000 were deposited in the Yadkin, Pigeon, Broad, Swananoa, Cape Fear, Linville, Johns' and Catawba rivers, in 1877 and 1878, and an additional number in 1878 and 1879. Also a small lot of Land Locked salmon to the amount of 15,500 were turned in different streams. The Commissioner complains that the smaller streams are being dried up by the thoughtless destruction of trees, and that in some places the streams are dammed for the purpose of catching fish, and by this means and with the destructive set-nets and seines employed in the spawning season. Some of our waters are being depopulated.

Col. Polk asks the Legislature to appoint a fish commissioner to attend to the important business of propagating and distributing fish. This work is so important that we hope the Legislature will not stop to count the comparatively small outlay involved.

2. Under the head of Commercial Fertilizers it appears that licenses have issued to the sale of thirty-one brands for 1877, and for forty brands for the year 1878. According to the law of the

State, all fertilizers offered for sale are first analyzed by the Experiment Station by Dr. Ledoux. In the paper which accompanies Col. Polk's report, is given all the analysis offered for sale. This experiment station is the second one of the sort in the country, and is founded upon a correct principle, and should be sustained morally by the farmers and with money by the Legislature.

Col. Polk is sound on the dog question. He says that there is about one dog to every three sheep in the State, and they have made sad havoc with the sheep in the past year. Of course the moral of this is, destroy the dogs or tax them out of existence. We are clearly of this opinion. Niemeyer points out that prophylaxis by destroying the dogs, is more to be trusted than remedies for hydrophobia, and so arriving at our conclusions by a very different route, we will second any motion to reduce dogs to the minimum.

We will not go further into an examination of these reports, but ask our friends, the farmer doctors, to secure a copy and read it. If we are not greatly mistaken the Department of Agriculture has a career of usefulness before it which it is hard to overestimate. One matter strikes us, however, as being essential to the success of the State's work in inducing emigration, and that is to furnish a reliable bulletin of the public health. Foreigners are too deeply impressed with the traditional land of paradise abounding in rich alluvial soil, and fever and ague, to change their opinions, and come and live among us, until they get official information. This cannot be done until the State has a Board of Health with means to work its machinery.

3. If all departments of the State were conducted with so much enthusiasm and intelligent purpose as shown by Mr. S. G. Worth, we think even the "Farmers Legislature" would see enough in it to afford liberal aid. This report is the clearest indication we have seen since the war of the progressive element in the new generation of Carolinians. Every citizen of the State should read Mr. Worth's report, and make his influence felt to the furtherance of his important work.

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*Decipium* and *philipinum* are two new elements discovered in the Samarskite of North Carolina, by Delafontaine.

## THE INDEX CATALOGUE OF THE NATIONAL MEDICAL LIBRARY--THE NEW HEALTH BILL.

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Dr. John S. Billings, writes to the New York *Medical Record*, March 6th as follows :

The printing and binding of the first and second volumes of the index catalogue of the library of the Surgeon-General's office has been authorized by a clause in the Sundry Civil Appropriation bill, which appropriates twenty thousand dollars for that purpose. As the MS. for this work is ready, it will be sent to press without delay. As great care is necessary in proof-reading to secure the accuracy which is essential in a work of this kind, the printing cannot be hurried, but it is hoped that the two volumes, each of about 1000 pages royal octavo, will be completed by June, 1880.

The bill providing for the census of 1880 also passed. This bill [set on foot by the timely wisdom and forethought of Dr. Billings. —Eds.] provides for the securing statistics of disease as well as of mortality, and we may fairly hope under its provisions, to obtain some very valuable data as to the relations of locality, occupation, age, race and sex to the more important diseases.

Congress also passed the Public Health Bill, which is the bill introduced by Mr. McGowan, of Michigan, with some modifications.

\* \* \* This bill was supported by the American Health Association, and by the great majority of leading sanitarians of the country. It was opposed by the Marine Hospital Service, and by many of the advocates of a strong uniform national system of quarantine. The essential feature of the bill, as urged by its friends, was that the United States ought to encourage and aid State and local boards as much as possible instead of trying to override and control them.

To this end it was proposed that the United States should subsidize properly constructed boards by paying half their expenses, precisely on the principle adopted in the new census law, which provides that when a State, in 1885, shall take a census on the plan of the United States census, the United States will pay half the expense.

It will be seen that this feature was stricken from the bill, but it is to be hoped that it will be restored in the coming extra session of Congress.

## CURRENT LITERATURE.

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### YELLOW FEVER EPIDEMIC OF 1878 IN NEW ORLEANS.

By JOSEPH JONES, M. D.

Professor of Chemistry and Clinical Medicine, Medical Department of the University of Louisiana,\* &c.

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Our space is already largely taken up with yellow fever this month, but we deem the subject very important. We will endeavor to keep our readers *au courant* with its literature, and we could not pass by the contributions by Professor Joseph Jones, of New Orleans, so well known in North Carolina as the most indefatigable investigator in our whole Southern country.

*“Origin of the Epidemic of Yellow Fever in New Orleans in 1878.*

“Two views may be held as to the origin of the epidemic of yellow fever in New Orleans in 1878 :

“1st. That the fever was imported from Cuba, or some other foreign port south of New Orleans, in the Antilles or in Central or South America.

“2d. That the fever was due, both in its origin and spread, to local causes and climatic conditions.

“The late Dr. John Harrison, in a valuable article entitled ‘*Speculation on the Cause of Yellow Fever,*’ published in the *New Orleans Medical and Surgical Journal*, March, 1847, thus formulates the facts to the origin of yellow fever in New Orleans :

“The theory, then, of the etiology of yellow fever may be thus stated : From the accumulation of filth in large cities, (chiefly night soil and the animal matters of urine), putrefaction must necessarily take place, and from this putrefaction, *under certain meteorological conditions*, there is generated a poison, which either in the form of a volatile oil, or other organic matter, held in solution by ammonia, floats in the atmosphere ; is inhaled during the respiratory movements ; is taken into the circulation and poisons the system. It produces specific effects, as much so as the matter of small-pox or scarlatina.

“The formation of this poison begins under certain meteorolog-

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\*New Orleans Medical and Surgical Journal, February and March, 1879.

ical conditions, which are utterly unknown to us, continues while they last, and ceases with them. As we have said before, this poison is not a gas, but a volatile substance, constituted of organic matter as much so constituted, as the matter of small-pox or hydrophobia.—(*The New Orleans Medical and Surgical Journal*, March, 1848, pp. 569 and 580.)

“On the other hand, Professor W. M. Carpenter, M. D., in his ‘Sketches from the History of Yellow Fever,’ thus gives his general conclusions :

“Yellow fever is a disease not native to the continent of America, but of foreign origin ; introduced first from Siam, and afterwards aggravated in its type by the importation of the Bulam fever.

“No well authenticated case of the *specific disease called yellow fever* has yet been known to occur on the American continent, under circumstances which precluded the possibility of infection, or even rendered it probable that it originated independent of transmission, either by going into infected localities, opening boxes or parcels from infected places, visiting boats or vessels from infected towns, or opening of rooms closed during the prevalence of an epidemic.

“Since the introduction of the yellow fever into America, it has always existed in some part of its coasts. It prevails almost perpetually near the equator, where the temperature of winter is rarely low enough to destroy the infection ; and it is carried by commerce to the countries lying north during that portion of the year between February and November, and to the regions to the southward from August to May.

“Yellow fever is a disease *sui generis* and peculiar, and not a grade of type of bilious fever :       \*       \*       \*

“The yellow fever is not produced by a crowded population, neither by heat, moisture, marsh air, miasm, filth, nor by any combination or concurrence of them ; otherwise it should always occur when they concur, and should not occur when the particular combination is absent ; neither of which we find to be true.

“The transmission of yellow fever depends exclusively on intercourse and commercial relation, any city being liable to infection in the precise ratio of its proximity to, and of its unrestricted communication with parts or places where the disease is epidemic. \* \*

"Yellow fever requires for its transmission, a moderate summer temperature; a certain accumulation of people, as the crew of a vessel, or the population of a town, city, &c.

"Under certain circumstances of population and temperature, the introduction of persons with yellow fever and of the air from places where the disease is epidemic, will frequently give rise to new cases, and finally to an epidemic of the disease. The infection may be conveyed in vessels and their cargoes, and the bedding and the seamen.

"The healthy state of a vessel's crew is no proof that she may not be infected; for the crew may all be acclimated, while the infection may be sealed up in her hold or contained in the cargo, &c., and may only exhibit itself after the arrival at a healthy port and among the unacclimated persons who may visit or receive freight from her.

"Cleansing and ventilation do not always destroy the infection in a vessel. Therefore, quarantine, with these precautionary measures, is not a sufficient guarantee for the public health.

"The only means by which the public safety can be guarded, is to prevent all vessels coming from sickly ports or places from coming above the quarantine ground, whether their crews be sickly or not. Provision should be made enabling them to discharge and receive freights safely and expeditiously, and arrangements should be maintained by which the freights so discharged should be delivered to the consignees as soon as the time expires which may be deemed necessary for its perfect ventilation and disinfection."

Dr. Jones in examining the questions in point confines himself to well-known facts. He gives the examination of the quarantine records, which show that only three vessels infected with yellow fever arrived at quarantine during the months of April, May, June, and July. The first, *Emily B. Souder*, arrived May 22d, 1878. She passed up to the city and presented a clean bill of health. Clark, the purser, was ill when the vessel reached quarantine, but managed to evade the inspection. He died on the 25th of May, and Dr. Drew, a physician familiar with yellow fever attended him on board and ashore, giving a certificate of death from malarial fever.

It is useless to follow Dr. Jones through the story of the crew of the *Emily B. Souder*, for it is as well known, and as much doubted as any of the wonderful stories in Darwin's *Zoönomia*.

Dr. Jones goes on to show how very few cases of yellow fever occurred at quarantine station—seven in all, among 282 vessels arriving;—and also to confirm by his own experience, and that of Prof. Chaillé, the inefficiency of quarantine. The latter gentleman after viewing the history of the Mississippi River Quarantine Station, declares that after twenty-three years trial, quarantine has annually failed of its sole object—to keep all cases of yellow fever out of the city. During the military occupation of New Orleans the experiment was tried, whether this failure was attributable to defects of the law, or of its execution; for by this exercise of authority, an *impregnable* system of quarantine was maintained, and notwithstanding its remorseless rigidity there were cases of yellow fever among the civil population every year. [What becomes of Gen. Butler's boast of the non-appearance of yellow fever during his administration in New Orleans.]

“Worse than this” Dr. Chaillé continues, “in 1863 and 1864 yellow fever appeared on board vessels of the United States.”

After reciting the narrative of the first cases occurring, Dr. Jones concludes—“The yellow fever of 1878, sprang up in the month of July, simultaneously in widely separated portions of New Orleans. This has been shown even by my own limited experience.”

Further on he says :

“From the preceding investigation, no light was thrown upon the foreign importation of the disease; on the contrary, the facts developed appear to favor the view of the domestic origin of the disease; at all events no connection can be traced between the various local outbreaks, occupying a belt at least, two miles in length, and the two cases said to have been engendered on board the steamship Emily B. Sonder. The connection of these cases with the subsequent and simultaneous explosions in different portions of New Orleans, can be connected neither in space, nor in time.”

Dr. Jones disagrees with Professor Choppin as to exclusive non-intercourse with South American and West India ports. He thinks this commerce should be carried on by acclimated persons, that New Orleans may reap the benefit of the trade.

These papers conclude with observations on the chemical and microscopic constitution of the air during the prevalence of the fever.

Dr. Jones finds that the blood of yellow fever patients differs materially from that of malarial fever patients; in the former disease the blood corpuscles rapidly assume a crenated form, with minute transudations upon the surfaces. In a severe case of yellow fever the blood often contains small particles possessing a vibratory motion. He has also observed bacteria and a singular delicate fungus in the blood of yellow fever patients.

Dr. Jones' deductions as to the agency of organisms are interrogatory and suggestive rather than the statements of an observer who was himself convinced.

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### LACERATION OF THE CERVIX UTERI—(HYSTERO-TRACHELORRHAPHY, PAUL F. MUNDE, M. D.)

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In an article of seventeen pages, (*Am. Obs. Jour.*, Jan., 1879), Dr. Mundé writes about this now well-known lesion. Until he investigated it, he thought that Dr. Emmett was entitled to the credit of first discovering the laceration of the cervix, but in Gardner's work on sterility published in 1856, he finds it not only described but illustrated with comprehensive drawings. Questions of priority are very seldom matters of great concern when one is searching for practical things, and the medical profession owe Dr. Emmett thanks for putting the subject before them in a strong enough light to attract their attention.

Dr. Mundé's article is illustrated with twelve figures in chromolithography, in a style we take it, that he so greatly desires the contributors to the *Am. Jour. of Obstet.* to follow.

The experience upon which this article is founded is the observation that out of 700 parous women (meaning such as had been delivered of one or more children at or near term) treated by me at the Out-Door Department of Mount Sinai Hospital during the past two years, there were 119 with lacerations of the cervix uteri of one or the other of the three degrees assumed by me. Of these, 92 were bilateral, 24 unilateral, (17 right, 7 left: this latter result is contrary to the experience of others, who found the sinistral



lacerations the more frequent, in accordance with the greater frequency of the left occipital presentations, and is probably accidental), two through the posterior and one through the anterior lip. Of these 119 cases, 20 were of the first, 45 of the second, and 54 of the third, or most severe degree. In only 16 cases was there no eversion and an absence of local and general symptoms attributable to the lacerations. In three cases the everted surface was cicatrized and innocuous. To show the rarity of simple uncomplicated eversion of the cervix, in comparison to the eversion and ulceration of the everted cervical mucosa, I will merely mention that only eleven instances of this formerly so commonly diagnosed affection were observed among these 700 cases." \* \* \* "The percentages of lacerations observed by me is 17 per cent."

Dr. Mundé hopes that he has demonstrated that not *every* laceration of the cervix should be operated upon as a duty, for he believes that a certain proportion of these lesions either do not require any treatment because they produce no symptoms, or, in a lesser proportion, are amenable to caustic and astringent applications—but there is a very large class of cases in which the operation is called for, not by the extent of the injury, but by the symptoms which it produces and the pathological conditions which it aggravates or maintains."

[In the January number of the NORTH CAROLINA MEDICAL JOURNAL, Dr. Joseph Graham, of Charlotte, contributed an article on laceration of the cervix, which it is well to refer to again. Many of our friends have had reason to thank the author for the light that paper throws upon pathological conditions heretofore neglected. Now since the cause of many obstinate "ulcerations" is known, we begin to realize that Dr. Graham did not attach an exaggerated importance to the lesion.—Eds.]

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## CASE OF RECOVERY FROM LEPROSY.

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Mr. Jonathan Hutchinson brought a case before the Royal Ch. Med. Society of London, as an instance of complete arrest of the progress of true leprosy. There was still paralysis of one ulnar

nerve, and many patches of skin were deficient in sensation, and there were permanent changes in the eye. In other respects, however, the cure was complete, and the patient enjoyed excellent health. The subject of the case had been under the author's observation for twenty-seven years. She is a Jewess, born of parents who had lived only in England, of a family in which no leprosy taint existed. At the age of thirty-two she went to live in Jamaica, and twelve years later she returned the subject of leprosy in a severe form; the tubercular and the anæsthetic symptoms were present in combination; areas of skin were dusky and devoid of sensation, one ulnar nerve was paralyzed, and the face was covered with tuberculous folds of indurated skin. She was for some time under treatment at the Hospital for Skin Diseases, then an in-patient under the Addison at Guy's, and lastly at Moorfields. For the last twenty years she has considered herself well. The author expressed his belief that the cause of the recovery was the change of residence and the element of importance in this the change of diet, and the special article of diet in question—fish. He did not believe that mere climatic influences, air, etc., had any share in the result, for, in regard to leprosy, it prevailed under the most various conditions.

The President, Dr. Charles West, questioned the correctness of Mr. Hutchinson's theory, as a certain monastic order lived chiefly on fish and yet he was not aware of the prevalence of leprosy among them.

Dr. Gilbert Smith had seen many cases of leprosy in the parts about the delta of the Nile, and it was common opinion that it arose from eating fish that had been exposed to the rays of the sun.

Mr. McNamara said that leprosy existed among the tribes of the Himalaya Mountains, who ate very little fish, while it was not met among the inhabitants of the Don and the Volga who used much fish. The inhabitants of the Sandwich Islands were free from leprosy until the immigration of Chinese in 1836.

There had been also a case in an European resident in Queensland, where there had been an immigration of Chinese. In this case, filariæ were found in the blood, and leprosy would probably be found to be connected with the presence of these organisms.

Mr. Hutchinson said that the connection of fish-diet with leprosy

was a question of much detail, on the consideration of which there was not now time to enter. He would, however, say that he believed it was not so much the amount of fish as its quality that was important. A small quantity of bad fish would probably produce the disease, especially when it was taken from water of a high temperature. In Norway, leprosy did not prevail in Bergen, except among the poor; the water there was comparatively warm, being exposed to the Gulf Stream. At Christiania, where the water was cold, there was no leprosy. Again, leprosy was met with in those parts of the coast of the Mediterranean to which fish was supplied.

Sir Joseph Fayrer said that if bad fish produced leprosy, the inhabitants of British Burnah ought to be very liable to the disease; but they were not. It was the universal belief in India that leprosy was not due to the use of fish as food.—*Med. Times and Gazette*, February 22d, 1879.

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## THE NEW QUARANTINE LAW FOR THE PORT OF WILMINGTON.

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By act of General Assembly, just adjourned, the port of Wilmington has been provided for with a more effective quarantine law. We quote from memory some of the new features as we have not seen the new bill since its ratification.

The quarantine officer at Smithville is assisted by two consultants chosen from the medical profession of Wilmington by the President of the State Board of Health.

Dr. W. G. Curtis, the quarantine officer at Smithville, is well pleased with the new law, and believes it will afford security and satisfaction to the public.

The Legislature made an appropriation for repair of the quarantine hospital.

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The Twenty-Sixth Annual Meeting of the Medical Society of North Carolina, the State Board of Medical Examiners, and State Board of Health meet in Greensborough on Tuesday, May 20th.

## MEDICAL ANNOTATIONS.

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*Fatty Embolon in Fractures.*—M. Déjerine contributes an article to *Le Progrès Médical* (Nov. 23, 1878). In 1862, Zenker made an autopsy of a man crushed between two wagons and found the capillaries of the left lung filled with fat. In the same year, Wagner, published many cases of fatty embolon, but regarded the fat as originating in a metamorphosis of pus, and as one of the causes of pyæmia. It was not until 1865 that Wagner and Büsch recognized the nature and cause of fatty embolon, as due to osseous alterations. It was proved that fatty embolon has its origin in the medulla of the bones, that it was really localized in the lung, but it was met with in every tissue in the organism. It was pointed out that by this mechanism a fatal termination was brought about in a number of those cases of more or less sudden death observed after severe injuries, and up to this date attributed to what is designated as shock.

From the researches enumerated it follows that fatty embolon, general or localized in the lungs, is much more common than is frequently supposed, and that it is produced not only in all fractures, simple or complicated, but it may be observed, without reference to injury, in all cases where the bones are altered in structure from some cause or other, in such the fact is less grave.

A case of crushed legs occurred in the service of Dr. Cusco, and a post-mortem examination was made. The blood of the right ventricle contained a large quantity of fat in the form of drops. The vessels of the lungs were gorged and literally injected with fat; sections of the lungs showed under the microscope, in the interior vessels, arterioles, veins and capillaries, elongated masses, three, four, and five millimètres in length, embellished with a special refulgency, disappearing under the action of ether, and becoming deep black, colored with osmic acid. These globules of fat were so abundant at certain points that they designated not only the peri-lobular vascular network. Another case similar, confirms the above observations, and resemble in all points those which have been made in Germany of late years.

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*The Plague and the Inefficacy of Quarantine.*—The following extract is taken from the *London Times*, January 31st. The entire article is the best we have yet seen, but is too long to be published in full.

“The symptoms which appeared in the time of Justinian and in the time of Boccaccio have been precisely reproduced in the pestilence which is now in its fourth or fifth year of prevalence, and to which public attention has been suddenly directed by reason of its invasion of Russia—an event long foretold, and which could not, in the nature of things, have been much longer deferred. If the disease should reach Moscow, or even any large village inhabited by

filthy Russian peasants and with no means for limiting the spread of infection, there is every possibility that the scenes which occurred in London or in Eyam in 1665 will be repeated. It is much to be regretted, however, that the public authorities of Austria, Hungary, and even Germany, appear to be inclined, in defiance of all knowledge and experience, to have recourse to quarantine in the hope of checking the spread of the epidemic. Misled by what Mr. Simon has happily called "the paper plausibilities" of quarantine, a measure which never has been and never can be rendered effectual, they are in imminent danger of neglecting those preparations for dealing with the disease if it should come in which alone true safety is to be found. The cordons of Cossacks around the infected Russian districts will be as useless for any purpose of prevention as the fence of hurdles which is said to have been employed to exclude cholera from a parish in a midland county during the epidemic of 1832. Even if the Cossacks were numerous enough to maintain touch in an unbroken circle, fugitives would still find means of passing through their ranks; or, if not, these very ranks could hardly escape either the infection or becoming the means of conveying it to others. As we have often insisted, quarantine, which could not be rendered effectual even in the middle ages, is more than ever an impossibility now, and it would be as well to attempt to carry water in a sieve as to shut up within certain limits a population earnestly desirous of transgressing them. A single person evading the quarantine may render all the preceding precautions of no avail; and, with the knowledge of the present day, the adoption of the measure would almost justify a charge of insanity against any rulers who put their trust in it. In the event of the West being invaded, either through the railways of Central Europe or through the traffic of the Mediterranean, before the epidemic has exhausted its force, we in this country are prepared to face and to disarm the peril. The health officers of our ports will be on the alert, and any suspicious cases of imported sickness will be promptly and effectually isolated; and rendered harmless. Unless the professors of sanitary science are wrong in first principles, or unless gross negligence is displayed where vigilance is a duty, we may look for the arrival of plague without terror, and without imposing a single restriction either upon the movements of healthy persons or upon the transit of their goods."

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*Antidotes for Strychnia.*—T. Huseman has given a fresh instalment of his experiments in the antagonism of remedies, particularly of the antidotes of strychnia. The substances experimented with were: 1. Bromide of potassium in combination of chloral hydrate. This combination is found to be inferior to chloral hydrate alone. 2. Alcohol is useful in a moderate over-dose. When the quantity taken is more than one and a half times the lethal minimum, alcohol fails to neutralize its effects. The action of alcohol,

moreover, cannot be predicted with any certainty, it is influenced by idiosyncrasy far more than that of chloral hydrate. 3. Physostigmin, where the dose of strychnia only just exceeds the lethal minimum its effects may be neutralized by pure physostigmin (free from calabarin). When it is twice or three times as great, physostigmin is useless.

The practical outcome of his experiments is the recognition of chloral hydrate as being the best and safest antidote in poisoning by strychnia. During the chloral sleep the patient should be watched, and any cessation of the respiratory movements (which is very prone to occur) combatted by methodical compression of the thorax. —*London Medical Record*, Feb. 15th.

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*The Suture of Nerves.*—Dr. Bakowiecki finds (*Gaz. Medicale de Paris, London Record*) that nerves after suture, are considerably hastened in their cicatrizations the reëstablishment of their function. It is necessary to unite the cut nerves within twenty-four hours of their section, and to perform the operation in such a way as to prevent the ligature from passing through any structure but the neurilemma. That sutures of cat-gut must be alone employed, as they do not cause suppuration, whilst they are wholly absorbed in the wound. Sutures prevent the appearance of tetanus.

In the cases treated in this way by Eulenberg and Landdis, negative results were obtained because they passed the ligature through the substance of the nerve. The experiments performed by Dr. Bakowiecki were made upon various persons; they were one hundred in number.

The nerves severed were the sciatic, vagus, and hypoglossal. The sutures employed were cat-gut, silk and silver.

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*Dissection of a Male Chimpanzee.*—The young male chimpanzee at the Zoölogical Garden did not long survive his companion, and is now being dissected by Professor Leidy. At a recent meeting of the Academy of Natural Sciences the results of the examination of the female (which died some weeks since) were presented, showing however, some important points of difference between the brain of that animal and the one now being studied.

Dr. Chapman reported that the brain of the animal under his examination closely resembled that of a human being, with the exception that the cerebrum did not cover the cerebellum. Dr. Leidy, on the other hand, finds that in the case of the male chimpanzee the brain of the animal more nearly resembles the human structure, and that the cerebellum is covered by the cerebrum, indicating greater intellectual power in the male. He inferred that the present was the only case on record in which an anatomical examination of a male chimpanzee had been made.

Another striking difference in the anatomy of the male and female

is a most remarkable peculiarity in the formation of the vocal organs of the male. This consists of a natural bag-pipe, which communicates with the larynx, extending to the breast and armpits. It is covered by powerful muscles. To produce a loud sound but a slight motion of the arms was necessary. In discovering this singular physical arrangement the Professor wrote to the Superintendent of the Zoological Garden to inquire if the male chimpanzee had any distinctive call or cry, to which the superintendent replied that the "voice of the male for so young an animal was simply enormous; its cry when enraged was loud, piercing and shrill." It is a well-known fact that this vocal arrangement is also found in the male gorilla, the ourang-outang, and the howling monkeys of Southern Africa, whose cry can be heard for miles.—*Boston Med. and Surg. Journal*.

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*So?*—The following we take from a leading Homœopathic journal. "Imperforate hymen 'cured' by silica, 6,000." The case in brief, was that of a young lady of 18, who had the menstrual *visus*, but no discharge. The Homœopathic professor who reports the case, says, in italics, "*upon careful examination, the hymen was found to perfectly close the vagina.*" After thinking the matter over, and from the fact that the Miss was constipated, it struck the learned professor's mind that silica, of the 6,000 trituration [a proportion of the drug much smaller than a cubic inch would bear to a solid globe, whose diameter was so vast that it would take thousands of centuries to traverse it] was just the thing. A single dose worked so admirably that, to quote again, "at the second menstrual period thereafter the menses flowed freely, and the finger was permitted to be passed to the *os tince*."

*Query?*—We would modestly ask the "professor," if the young lady had swallowed a whole grain of sand, when eating a strawberry, what would have been the result? Reasoning from analogy the "arrested force" would have let loose a cata-clysmal catamenia that would have swamped the whole solar system; and words are powerless to tell how far his finger might have passed. From this fact we are mighty glad she didn't take more "sand in hers" than she did. We rather think the whole thing should be taken *cum grano sacculi*.]—*St. Louis Clin. Record*.

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*Kumyss for Children*.—Kumyss is recommended not only in the intestinal disorders of children, but also in all diseases characterized by defective nutrition; and the following rules should be observed in its administration:

In giving kumyss to children under one year of age, always empty the contents of the bottle into a pitcher, and from that into another, and so continue to pour it back and forth until all, or nearly all, the gas is eliminated—say for about ten minutes. Then take what

is necessary for one dose, and pour the remainder back into the bottle, cork and keep in a temperature between 50° and 60° Fahr. By thus always corking and placing the bottle in a cool place after taking the dose from it, it is possible to keep it for twelve hours.

It should never be warmed, sweetened or diluted under any circumstances whatever, nor should it ever be given less than two hours after the administration of any other form of milk—Dr. P. Brynberg Porter, in *New York Medical Journal*, March.

In the *Revista de Medicina y Cirujia Practicas*, published in Madrid on the 22d Sept., 1878, a remarkable case is recorded as occurring in the surgical clinic of Prof. Kreuz. It was a case of normal pregnancy with death of the fœtus at the seventh month, due to a violent fall on the part of the mother. Putrefaction within the womb occurred, and fistulous tracts were formed through the cervix uteri and through the abdominal wall; when these latter formed, those through the cervix healed up. Gastrotomy was performed by Prof. Kreuz twenty-seven months after conception. Some fever and signs of slight peritonitis were present for a few days; but the patient subsequently did uninterruptedly well, and a complete recovery ensued.—*Canadian Journal of Medical Science*.

*How to Cough*.—Dr. J. M. Fothergill says: "It must be insisted upon that the chest be well filled with air before the cough is let loose; that is, the reflex act must be inhibited by the exercise of the will, until the chest be well filled with air before the cough is let loose. Such full inspiration is effective not only in removing the source of the irritation, but it usually causes other masses of mucus and charcoal to slide from their seat, and thus to set up further cough for their removal. But, if the full inspiration plan be followed, these masses are readily and quickly expelled." Of course these directions are of use only in such coughs as are for the purpose of removing some offending matter from the air passage.—*Lancet and Clinic*, from *Phil. Med. Times*.

*Capsicum in Delirium Tremens*.—The decided value of capsicum in the treatment of drunkenness appears to be established. Dr. Kinneau in the *London Lancet*, March, 1862, drew the attention of the profession to its use, and, since that date, many other observers have confirmed the truth of his statements relative to its efficacy in the cure of delirium tremens. In a recent article in the *Lancet* by Mr. Bingham Crowther he reports two cases in which large doses of tincture of capsicum rapidly restored the patients after other remedies had failed, and where the symptoms were very severe. In one case there were pneumonic trouble, which seemed to be benefited by the treatment.



*Sufferings in Brazil.*—The Surgeon-General, Marine Hospital Service, says, in his last report: The U. S. Consul at Pernambuco reports that in the interior of the province of Ceará a severe drought has prevailed for two years and a half, no rain having fallen during that time; the excessive dryness caused the disappearance of the innumerable small streams which furnished the whole water supply of the country, the consequent death of nearly all the cattle and sheep, and the complete destruction of the usual means of subsistence of the population, which is wholly an agricultural one. The people have been reduced to subsistence on roots, cotton pods, reptiles, and any living or dead thing that would sustain life, some resorting even to cannibalism. In the winter of 1878 small-pox appeared in epidemic form, and caused a frightful mortality among the starving people. A general flight of the people from the interior to the coast cities occurred. The normal population of 25,000 in Fortaleza, the capital, was quickly raised to 100,000, the squares of the city being filled with thousands of unsheltered people, dying of disease and starvation. One half of the original population of the city have died of small-pox. In the new cemetery of Lagoa Funda, opened in the middle of last year, there were 60,000 interments up to January 1st. The number of burials from small-pox alone, between November 1st and January 1st, in this cemetery, were 24,470; the total interments in the city for the two months being 31,571. At Parahyba, 12,000 refugees out of 15,000 who had fled to the port, died, and similar distressing accounts are given of the other coast cities. The Consul estimates the usual population at 900,000 of whom 500,000 have died of disease and starvation. The Brazilian Government have expended \$10,000,000 for the relief of the sufferers. At last advices slight rains had fallen in the interior, and it is believed that the worst period of the scourge has been passed.

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*The Temperature of the Brain in Insanity.*—Margaglino in conjunction with Sepilli made some investigations into the temperature of the brain in 115 insane patients at the asylum of Reggio with the following conclusions:

In all cases except those of dementia and lipomania the average temperature is higher than normal.

In insane as well as in sane individuals the temperature of the occipital region is higher than that of any other part of the head. The temperature of the frontal lobes is like that of the parietal lobes in lipomania agitata, dementia agitata, imbecility and idiocy; it is higher in mania and simple dementia, and it is lower in progressive paralysis.

In all forms of insanity the temperature of the halves of the head alike except in congenital brain lesions where the temperature of the right half of the head is higher than that of the left.

These conclusions coincide with the pathological condition en-

countered on autopsy, inasmuch as in mania, in progressive paralysis, the parietal regions are the seat of the disease.

As control experiments the two Italian experimenters made temperature measurements of the brain, also on 20 healthy persons and got higher figures than Broca and Grey—*La Salute*, No. 19, 1878.—*Cincinnati Lancet and Clinic*.

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*The Development of the Graafian Follicles during Pregnancy.*—Contrary to the opinion then prevailing, and contrary to that now generally taught for example, Barnes' "Diseases of Women," p. 28), the late venerable Professor of Midwifery at the Jefferson Medical College, Dr. Charles D. Meigs, used to teach that the development of the Graafian follicles continued uninterruptedly during pregnancy. This opinion has been confirmed by some researches and post-mortems made by Dr. Slaviansky, which we find in the *Med. Centralzeitung*, October. 30. A woman of twenty-four years, who died suddenly in the third month of pregnancy, displayed follicles on the point of bursting, and recent corporalutes. This may be said to decide a question of considerable physiological interest.—*Canadian Journal of Medical Science*.

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*Pilocarpin in Children's Diseases.*—The experience of Prof. Demme, of Berne, (*London Practitioner*, *London Medical Record*, February 15th, 1875), pilocarpin is an efficacious diaphoretic and sialagogue in the treatment of certain diseases of young children. In appropriate doses it is well borne by the youngest patients. Unpleasant symptoms are of very rare occurrence, and can probably be altogether prevented by administering small doses of brandy before the (hypodermic) injection. The cases for which pilocarpin is especially suitable are the parenchymatous inflammations of the kidney, with dropsy following scarlatina and diphtheria. It is uncertain whether pilocarpin has any direct influence upon the action of the heart. The age of the patients vary from nine months to twelve years: the dose from five milligrammes (1-13th grain) to two centigrammes (1-3d grain).

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*Jaborandi in Puerperal Albuminuria.*—In a paper read before the *New York Medical Society*, Dr. Fordyce Barker after narrating the course of seven cases treated with this drug concludes: "The utility of jaborandi in the treatment of puerperal albuminuria is more than doubtful, and after puerperal convulsions, its depressing influence and action, which is continuous and exhausting, prevents sleep and the repose of the nervous system, and thus renders it in these cases an unsafe and dangerous remedy."

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*To Kill Trichinae.*—Experiments recently performed have shown that a very little sulphurous acid added to the brine in which pork is pickling will kill all the trichinae without damaging the pork.

*Supra-Pubic Lithotomy—Death.*—Dr. E. L. Keyes at the last meeting of the New York Pathological Society, presented specimens of stone which he had removed from three patients by the high operation. In each case death occurred. One of the cases, he thinks, was favorable for the lateral operation, but the other two he thinks would not have done well under any operation. Dr. Keyes thinks that the only advantage that supra-pubic lithotomy has over the lateral, is in the rapidity of the operation.

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*Lithotrity: Bigelow's Operation: Death.*—Dr. R. F. Weir, at the last meeting of the New York Pathological Society, presented fragments of a stone removed by Bigelow's operation. The patient had a chill and fever on the eighth day, and on the ninth day diarrhoea. The autopsy showed multiple abscess of the right kidney.—[We should say not a favorable case for lithotomy either.—Eds.]

So far, in New York, thirty-four cases have been operated on by Bigelow's method, with three deaths. Condensed from *New York Med. Journal*.

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*The Diagnosis of Drunkenness.*—Dr. Macewen, of Glasgow, has formulated the following rule: Any insensible person, who, having been left undisturbed for from ten to twenty or thirty minutes, has contracted pupils, which dilate when he is shaken, without any return to consciousness, and then contract again, is suffering from alcoholic coma. If this test holds good, it will tend to decrease the number of sensational editorials, etc., under the caption: "Drunk or Dying," which so frequently appear in the English papers.—"*Proceedings*" *King's County*.

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*A New Rival of Digitalis.*—The result of some experiments performed by Professor Botkins, published in the *St. Petersburg Med. Woch.*, together with clinical observation with *Adonis vernalis*, lead to the supposition that this drug contains a poison analagous to digitalis, which strongly affects the heart, and that some cases of compensatory trouble the action of the heart could be restored by it, even if digitalis had proved unsuccessful.

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*A New Method of Administering Cod-Liver Oil.*—A spoonful of cod-liver oil is well beaten up with the yolk of an egg and a few drops of peppermint, to which half a tumbler of water sweetened with sugar is added. The color of this mixture is white, it neither smells nor tastes like cod-liver oil, and can be easily taken by the patient.—*Journal des Sages-femmes, London Medical Record*.

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*The Dermatophone* recently invented by Professor Hunter, of Griefswald, is the latest outgrowth of Edison series of instruments.

It consists of a flexible stethoscope with a thin caoutchouc membrane stretched over the end applied to the skin, and a perforated horn plug to fit the ear and close the meatus as nearly as possible. By this means he is enabled to hear the capillary murmur on the cheeks and the finger-tips.—*Med. Times and Gazette*.

*Forceps in Different Breech Deliveries.*—Prof. A. J. Miles, M. D., (*Am. Jour. Obstet.*, January, 1879), figures a pair of forceps devised by him for delivery by the breech. These forceps adapt themselves to the anatomical construction of the pelvis of the child, will not, when properly adjusted, slip or produce undue pressure on the abdomen of the child. He prefers them to the fillet or the blunt hook.

*Nutritive Enemata*—Dr. Heine prefers for rectal alimentation, the use of Leube's formula, of two-thirds beef and one-third fresh pig's pancreas. The prepared mixture is passed high up the bowels by means of Dr. Beirne's tube aided by gravitation, instead of being injected as ordinarily, and then the large intestine is enabled to retain and digest much of the preparation.—*London Medical Record*.

*Tobacco on the Teeth.*—M. Maurel, in *Journal de Thérap.*, writing of the substances which damage the teeth says that tobacco, whether used in chewing or smoking does not injure the teeth beyond causing their discoloration.

[This is evidently a mistake, of which M. Maurel would be satisfied if he had the opportunity of examining the badly worn teeth so common among American chewers].

*Hepatic Abscess.*—Dr. Walter Coles reviews in the February number of the *Richmond and Louisville Medical Journal* a report by Dr. Wm. A. Hammond, of New York, on the treatment of hepatic abscess. It is well worth reading for the information contained as well as for the skill with which he analyzes and successfully combats some of Dr. Hammond's statements.

The Board of Medical Examiners will meet on Monday, May 19th, to examine candidates for licensure, thereby enabling those who are licensed and afterwards join the Society to participate in the meeting.

H. T. BAHNSON, M. D.,

Salem, N. C.

Secretary Board of Medical Examiners.

## OBITUARY.

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SURGEON-GENERAL J. M. WOODWORTH, M. D.

*Extracted from Circular Letter of the Secretary of the Treasury.*

"Surgeon-General Woodworth whose death occurred in Washington city March 14th, 1879, was born in Chemung county, New York, August 15th, 1837. He entered the service of the United States as an Acting Assistant Surgeon of the Army in 1862; was soon after appointed Assistant Surgeon of Volunteers, and in 1863 promoted to Surgeon, and afterwards Medical Inspector and Medical Director of the Army of the Tennessee. He was previous to his leaving the army breveted a Lieutenant-Colonel. His connection with the Marine Hospital Service dates from the reorganization in 1871, and the history of the service since that date is mainly identified with his own, for the work of reorganization has been solely intrusted to him since its commencement."

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## TO OUR READERS.

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### PURE GRAPE WINE.

The unprecedented success of Speer's Wine in North and South America and Europe, has gained for it among the medical faculty a standing reputation. Chemists and scientific men have visited his cellars in New Jersey, and analyzed his Wine, and pronounced it the most healthy and beneficial in the market. The following letter was received by Mr. Speer from Dr. A. D. Wilson, one of the oldest and most celebrated physicians of New York city. "I have been in the habit of using Speer's Port Grape Wine and have found it an excellent stomachic, a gentle stimulant and tonic. It is especially useful in cases of great nervous debility and stomach weakness."

The disposition of unprincipled dealers to adulterate wines has compelled Mr. Speer to bottle all his productions and place his signature over the cork so as to insure to the public its purity. It is being used by the most fashionable families to hand around with cake at evening entertainments. Salesroom 34 Warren street, New York.

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## BOOKS AND PERIODICALS RECEIVED.

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Notes on Baptisia. By William M. Canby, Wilmington, Del.

Rhode Island. Twenty-Fifth Registration Report. 1878. Pp. 116.

Report of the Health Officer of the city of Rochester, New York, 1877 and 1878.

In Memoriam. Dr. Landon R. Longworth. Eulogy pronounced by F. Forchheimer, M. D.

Proceedings of the Board of Trustees of the University of the South. A. D. 1878.

Annual Report of the Board of Health of the State of Louisiana to the General Assembly for the year 1878. Session of '79. Pp. 192.

Excerpta from the Annual Report to the Board of Health for 1878. By Joseph Holt, M. D. Sanitary Inspector of the Fourth District of New Orleans.

Studies from the Biological Laboratory. Sessions 1877 and 1878. Johns Hopkins University. Edited by H. Newell Martin, M. A., B. S. Professor of Biology.

The Therapeutic Value of Ergot. By J. W. Compton, M. D. Professor Materia Medica and Therapeutics. Reprint from the Detroit Lancet. Pp. 8.

Additional Facts and Information in Relation to the Catalpa Tree. *Catalpa Bignonioides* and its Variety (?) *Speciosa*. E. E. Barney. Dayton, Ohio.

Botanical Contributions. By Asa Gray. Extracted from the Proceedings of the Am. Acad. of Arts and Sciences. With two illustrations by Spragne; one of *Aretomecon Californicum*, the other of *Canbya Candida*. Pp. 84.

Biennial Report of the North Carolina Institution for the Deaf and Dumb and the Blind. From January 1st 1877 to January 1st 1879. 32d and 33d Sessions. Published by the Board of Trustees. From Mr. H. A. Gudger, Principal.

Handbook of North Carolina Embracing Historical and Physiological Sketches of the State. With Statistical and other information relating to its Industries, Resources and Political Condition. By L. L. Polk, Commissioner [of Agriculture.]

A case of Inflammatory Fungoid Neoplasm. By Louis A. Duhring, M. D. Professor of Skin Diseases in the Hospital of the University of Pennsylvania. Reprinted from the Archives of Dermatology. With illustrations. Pp. 28. J. B. Lippincott & Co. Philadelphia, Pa.

Evolution and Human Anatomy. By Stanford E. Chaillé A. M., M. D. Professor of Physiology and Pathological Anatomy, Medical Department University, New Orleans. Reprint from the Medical Record, Feb. 22d, 1879. Pp. 21.

By the same Author. History of the Laws Regulating the Practice of Medicine, etc., in Louisiana. 1808 to 1878. Reprint from New Orleans Medical and Surgical Journal, June, 1878.

# NORTH CAROLINA MEDICAL JOURNAL.

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M. J. DeROSSET, M. D., }  
THOMAS F. WOOD, M. D., } Editors.

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## ORIGINAL COMMUNICATIONS.

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### SOMETHING ABOUT DRINKING WATERS.

By ALBERT R. LEDOUX, Ph. D., Chapel Hill, N. C.

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Every man must have his vocation ; every one his specialty. We are all dependent on others, whenever problems outside of our own line of business or research demand a solution.

Recognizing these truths, every man should feel that he owes a duty to his fellows, and that his motto should not only be "live and let live," but also "live and help live."

No science has done more *gratuitously*, for the advancement of the human race, than medicine.

No other vocation *gives away* so much of invention, research, time, labor, money, to make men stronger, happier, better.

Following out her lofty aims, medicine has called to her aid sister sciences, and united with them to build up new safeguards around humanity.

Thus, for example, medicine has united with chemistry and architecture to form "Sanitary Science," with all its details of

work and endeavor for the health of nations, towns, villages and homes.

No question which sanitary science discusses and investigates, is more important than the relation of drinking water to health.

The one grand cry of humanity—yes, of the brute creation, and of the vegetable world too.—“is give me something to eat and drink.” Dame Nature furnishes about two hundred and fifty articles to man for food, giving him the greatest variety, from which to choose, when hungry; but, when he would slake his material thirst, she offers simply water. It is the most abundant thing upon earth, as every school-boy knows.

Over two-thirds of our globe is covered with this wonderful liquid—while, on the solid ground, there are comparatively few localities, where water will not be struck on digging. In fact, our soil is one vast sponge, holding in its porous mass—water.

The air around holds water in suspension; the trees and lesser plants hold water in every leaf and branch—while fruits are mainly—water.

Seventy-five of every one hundred pounds of potatoes are—water; one acre of potatoes requires, at the very lowest estimate, twenty tons of water, during the growing season, to bring tops and roots to a perfect healthy maturity.\*

Eighty per cent. of apples, pears, peaches, &c., is—water.

Eighty-six per cent. of milk is—water. We ourselves are, by weight, mainly—water.

A body weighing one hundred and twenty pounds, if dried till free from all its liquids, would weigh but twenty pounds—while three-fourths, by weight, of the human body is water. If we were to make a box 16 inches square and the same deep, (a cube of 16 inches,) with walls one inch thick, and fill it with water, the ratio of water to wood would very nearly represent the relative proportions of solid and liquid constituents of the human body, both by weight and volume.

Having taking a hasty glance at the magnitude of the demand of organized nature for water, we will pursue it no farther in a

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\*Supposing the rain-fall to average thirty-six inches per annum, there is a fall of three cubic feet on every square foot of ground, or an acre receives twenty thousand nine hundred and eight (20,908) gallons of water per year.



general way, but confine ourselves to *man's* particular need and the character and sources of supply.

To obtain the quantity, which he requires to meet the demands of his system, a man consumes every year, about three-fourths of a ton, or fifteen hundred pounds of water. Some of this supply comes, of course, from waste and vegetables, which are, on an average, three-fourths water, and from bread, which will average 45 per cent. A certain quantity is also generated in the combustion of food, but the greater proportion is taken in drink.

It will suffice to mention one or two of the uses of this water, which plays such an important part in our system. It gives a medium of circulation—of transportation—to solid, inert substances.

As the great oceans and mighty rivers of earth bear upon their bosoms noble ships, freighted with the wealth of nations, so in the blood the precious corpuscles are coursing, borne on in their life-giving, life-sustaining mission, by the water in which they float. So in the milk and other animal creation, water bears safely a freight of valuable, solid particles, or carries off useless solids in solution. It gives pliancy to muscle and flesh, and serves many another purpose in the economy of the human system.

It can be seen from the outlines we have just given, without the need of a further demonstration, that the *quality* of drinking-water is of the utmost importance.

It is strange, but true, that man needs to be protected, even by force, against himself, and this is well exemplified in the matter of drinking-water.

One of the first and last labors of every State or city Board of Health is to prevent men from poisoning their drinking-water or allowing others to do it for them, and to keep them from using it, when it is thus poisoned.

Those who live in the country are often prone to thank God that they live beyond the reach of sewer gases and other poisonous contaminations of city wells; but, before being too confident, let us ask ourselves the question, "are the people of our villages, or on our farms and plantations, entirely free from typhoid fever, diphtheria and other diseases, whose origin is so *often* traced to impure drinking-water."

But what is pure water? It may surprise some of our readers

when we state that *absolutely pure* water, used constantly, is unhealthy!

Distilled water, taken copiously, will soon make one sick. A number of diseases which prevail in some mountain countries are ascribed by many to drinking comparatively pure snow water. Another surprise for some, perhaps! We consider water tasteless, but *had* it no taste we would loathe it! But we will return to this hereafter.

There are two tasteless, odorless, colorless gases called respectively, "Hydrogen" and "Oxygen." If we mix them in a vessel and apply a match, there is instantly a powerful explosion, heat is generated and there is formed—water. The two strange, invisible gases have combined and formed the well-known liquid. Whenever a substance which contains hydrogen, like wood, paper, starch, sugar, &c., burns, it forms water with oxygen of the air. In fact, these two gases are always ready, on the slightest provocation to unite. Rain, or melted snow, approaches nearest to chemically pure water, but all wells, springs, rivers and seas contain dissolved substances, in greater or less degree. Water being the most universal solvent, whenever it comes in contact with the earth, dissolves the soluble constituents of the soil through which it flows, and hence it is that on analyzing water we find solid substances in solution. Streams in their onward course take up more and more matter; rivers flow into the ocean, and in the ocean the maximum amount of solid matter in solution is found. There the rivers have been carrying their load for centuries and leaving it, since water evaporating carries nothing away with it. Besides these solid bodies some gases are dissolved by water. Many waters contain, besides mineral and gaseous bodies, organic matter—living animal and vegetable organisms or decayed substances.

Having noticed the different classes of foreign ingredients in water, let us study them a little more closely, considering their effects and influences on the human system.

*Mineral Ingredients.*—These are the substances most frequently met with in waters, indeed, organic matter may be said to be rare in comparison to the wide distribution of the inorganic solids. An enumeration will reveal many things with which we are more or less familiar. The most common solids in well, river and sea

waters, are lime, magnesia, soda, potash, iron, chlorine, sulphurous acid, silica, phosphoric acid and alumina.

An analysis of an average soil will reveal the presence of all of these substances, so that it is very easy to understand how they got into the water. If we arrange some of them in another way, grouping some together, we will recognize many things common in medicine or every day life. Thus we have

Chloride of sodium or common salt.

Sulphate of soda or Glauber's salt.

Sulphate of magnesia or epsom salt.

Sulphate of lime or plaster.

Carbonate of lime or limestone.

Carbonate of soda or common "soda."

The effect upon the system of each one of these substances, or combination of them, when occurring in water is the same as when given in ordinary prescriptions, but there is a point beyond which chemistry has not penetrated; for instance, a glass of some mineral waters, containing but a few grains of solid matter in solution will often produce a quicker and more powerful effect when taken than twice the amount of the solid constituents, shown to be present by analysis, prepared artificially by the apothecary.

The reason of the efficacy of some mineral waters may be in unrecognized combustion of known elements or the presence of substances as yet beyond the power of chemistry to detect.

Four of these common substances mentioned above have a characteristic taste, and as they are all found in nearly every well, it follows that these waters must have *some* taste. This, as already stated, is a fact. We, who are accustomed by constant use to one particular well, fail to recognize any taste at all, while a stranger will often detect it at once. Distilled pure water tastes "flat" and very disagreeable to us, because we miss the salts and gases, which distillation has removed.

A chemist will often work in an atmosphere filled with noxious and powerfully smelling gases, but will not be able to perceive them, though a stranger would not only notice them at once, but with great difficulty endure them.

The mineral constituents in well or river water will average five to thirty grains per gallon: while they vary in amount, as shown

from analysis from one-twentieth to twenty thousand grains per gallon.\*

Waters containing much lime or magnesia, are called "hard," and are the only kind found in some sections of our country.

Besides the common mineral constituents of water, there are others, which have been occasionally detected, such as arsenic, barium, strontium, lithium, bromine, iodine, fluorine, zinc, copper, lead, silver, antimony, nickel, cobalt, &c., &c. It will be noticed that many of these are poisonous, but nature suffers their presence, in minute quantities only,—except in rare instances,—while the localities having metallic elements in their waters are few and chiefly among mines and ore-beds. These substances rarely occur in our wells and springs and hence they need no particular consideration here, though, if present, only analysis is a safe means of detection.

Where water contains a large amount of mineral matter, it has a decided effect upon the digestive organs, and, after shorter or longer use, tends to produce diseases, such as dyspepsia, constipation, gravel, &c., &c. But waters with a large enough amount of mineral matter to give them a decided taste, are called "mineral waters" and are used rather as medicine, than as a habitual means of slaking thirst.

*The Common Gases* dissolved or imprisoned by well and spring water are carbonic acid, sulphuretted hydrogen and the components of air—oxygen and nitrogen. Of these only one is dangerous—sulphuretted hydrogen—and that is easily detected by its smell, resembling that of spoiled eggs. It gives the characteristic odor to "sulphur" waters. Carbonic acid and air give to waters their sparkling quality—the former being often artificially introduced, as in "soda-water," &c.

*The Organic Matter* in well, spring, and river water may be dead or living, and we will consider the two classes separately.

*Lifeless Organic Substances.*—These may be the remains of organized bodies and plants once living in the water, or animal and veg-

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\*In the river Losa in Sweden, and the Dead Sea, respectively: the latter containing four hundred thousand times more solid matter than the former. Ocean water has about 2,500 grains per gallon.

etable matter from some outside source. The latter is the most frequent source of organic impurity.

In localities where heat and marshes abound, water may often be colored by organic acids and other substances which dissolve, and yet not be appreciably unhealthy. Such waters are common in some countries, and present dangerous *possibilities*, should fermentation and putrefaction at any time set in. Decaying fish and animals, leaves, &c., &c., form the ordinary and accidental organic impurities of water. These are unhealthy not only in themselves, but especially because they offer to the germs of disease or pestilence a harbor and sustenance.

As was stated in the early part of the paper, men must be protected from themselves and especially against water of their own poisoning. Nature's strivings are constantly to make clean the unclean; to dissipate the noxious and to destroy the hurtful, but man by breaking nature's laws, brings ten fold vengeance on his head. The most dangerous poisons in well water are the drainings of sewers, sinks, yards and privies, and the refuse from towns.

These organic, poisonous matters ooze through the soil into wells and springs, and as before said, *may* not show any bad effect for sometime, but sooner or later disease and death will surely visit the unsuspecting household and the physician's aid be sought in vain, for with every draught of water which passes the fevered lips, the sufferer imbibes new poison and hastens the inevitable end. Moreover, the germs of many contagious diseases, which feed on filth and multiply in foul water, are nurtured and preserved in warm climates through winter weather, by the equable temperature of wells and cisterns, and are ready to start anew on their errand of death, when a favorable moment arrives.

The city of Wilmington is no doubt above the general average of Southern cities in sanitary condition, but what a picture the February number of the JOURNAL showed us. Think of it!

*"There was one well two feet from the privy, two wells four feet from the privy, thirty-three wells ten feet from the privy, two hundred and twenty wells from twenty to thirty feet!"*

The soil upon which Wilmington is located being "nearly as white as the sea-shore and as permeable!!"

It is not our purpose at present to depict the danger of such neglect of sanitary precautions, so much as to point to a remedy.

1st. *We say unhesitatingly, if a well shows signs of contamination by sewerage or other like matter, fill it up!*

2d. *Build all sinks and privies as far as possible from the well.*

Through permeable soils and strata, dangerous liquids may ooze to a distance of many feet. We know of cases where wells had been used for years with no bad effect, when suddenly disease and death appeared. The poison, though slow in its course, had finally reached the well and a chemical analysis revealed contamination from privies thirty feet or more distant.

The living organisms which are found in water are, some of them injurious; some beneficial.

Under favorable conditions of light, warmth, &c., countless millions of living things will spring into life in any water; the more impure, the more abundant they will be. If the water is alkaline they will be animalculæ or infusoria: if acid, fungi, algæ, &c.

They are never found in fresh rain water, but abundant in nearly every cistern. The office of infusoria is in water, that of the buzzard on land: they are scavengers, and purify the liquid by feeding upon the decaying matters it contains. But the microscope reveals to us in water, contaminated with sewerage, for instance, minute germs capable of motion, which, as in the case of the infusoria, live on the organic matter, but are believed to accompany if not to cause many forms of contagious disease, filling even the air, in times of epidemic.

To detect many of these impurities and dangers, chemical analysis and the microscope are sometimes indispensable, but the following rules may awaken suspicion and lead to a scientific investigation of the quality of drinking water in some cases.

*A good drinking water is perfectly colorless and transparent, without smell or noticeable taste and agreeable to the palate. It should not lose its clearness in boiling and should leave a very small residue on evaporation.*

Where impurities are suspected, an analysis should be obtained if possible, if not, filtering through charcoal or sand, or boiling will often either remove or render harmless various dangerous ingredients.

Our State Board of Health have done the people of Wilmington

and of the whole State a great service in directing attention to this subject. May they go on and prove a mighty blessing to the Old North State. Let us give them the aid and encouragement they deserve.

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### SUBSTITUTE FOR COD-LIVER OIL.

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An excellent substitute [for cod-liver oil] and one often better tolerated, is the fat of pork properly prepared. I direct a thick portion of the rib piece, free from lean, to be selected and allowed to remain in soak for thirty-six hours before being boiled, the water being frequently changed to get rid of the salt. It should be boiled slowly, and thoroughly cooked, and while boiling, the water must be changed several times by pouring it off, and fresh water nearly boiling substituted. It is to be eaten cold in the form of a sandwich made from stale bread, and both should be cut as thin as possible. It is very nutritious, but it should only be given in small quantities until a taste for it is acquired. It is the most concentrated form in which food can be taken in the same bulk, and I have frequently seen it retained when the stomach was so irritable that other substances would be rejected. For this condition of the stomach it may be rubbed up thoroughly in a porcelain mortar and then given in minute quantities at a time. It is made more palatable by the addition of a little table salt, and this will be tolerated, while the salt used for preserving the meat having become rancid, if not soaked out, will produce disturbance even in a healthy stomach. I, some years ago, saved the lives of two of my children, who, on different occasions were suffering from cholera infantum, by feeding them entirely on the fat of pork prepared in the way I have described, and, while nothing else would be retained in their stomachs, not only was it retained, but it also had a beneficial effect on the diarrhœa.—*Emmett's Prin. and Prac. of Gynæcology*, p. 102.

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A surgeon in London was recently tried and convicted of manslaughter, for not heeding numerous calls from a patient who afterwards died apparently from this neglect.

## COUNTRY CLINQUES.

### VI—A CASE OF OPIUM POISONING. (?)

BY A NORTH CAROLINA PHYSICIAN.

Katie L., colored, æt. 40, an expert and industrious laundress, but a woman of lewd character, has been under observation for several years. A reliable history of her previous life I cannot give. According to her own account, she had suffered almost every ill to which flesh is heir, excepting gonorrhœa and syphilis. There was a marked systolic murmur over the base of the heart, which, since she showed no other symptom of anæmia, I considered indicative of structural lesion; but as will be seen, I was probably mistaken in this opinion.

The most interesting feature in her case, and for this I most often prescribed, was the concurrence of epileptiform convulsions with every menstrual epoch. For six years has this occurred with almost uniform regularity, an occasional intermission only, having been brought about as the result of medical treatment.

En passant, a word may here be said against the too generally accepted idea that albumen found in the urine of puerperal women, after convulsions, is an indication of a previously existing albuminuria. On five successive occasions, I examined the urine passed by this woman before the occurrence of convulsions, and within a few hours of the attack.

*There was not a trace of Albumen.* Invariably I found the urine which was passed *after* the epileptic seizure to be *highly albuminous*. It gradually resumed its normal character in from two to six days, in a direct ratio to the severity of the attack. Again, the severity of the convulsions maintained an inverse proportion to the quantity of the menstrual discharge. When this was profuse the attack was light, when scanty, more severe. The convulsions generally appeared just before, or at the beginning of the monthly flow. Latterly their occurrence has been somewhat irregular, as has also been the case with the menses. Elaterium in  $\frac{1}{4}$  grain doses, frequently cut them short, but exhausted the patient to such an extent that it had to be discontinued. For several months past I have been controlling the convulsions with  $\frac{1}{2}$  grain doses of morphia per



orem, repeating every hour until relieved. She has frequently taken two, and a few weeks ago took three such doses, without exhibiting symptoms of marked narcosis.

At 9 A. M., on February 25th, I was called to see her. She had had four most violent convulsions during the previous night, and was complaining of terrible pain in the head, with nausea and vomiting. She expressed the conviction that another convulsion was imminent, and begged for relief. I immediately and without hesitation introduced  $\frac{1}{2}$  grain of hydrochlorate of morphia under the skin of the forearm, and having other engagements, left her. At 12 M., I was sent for, and informed that shortly after my departure, she sank into a deep sleep with stertorous breathing. All efforts to rouse her, had failed. On examination, she presented the following symptoms: There was total insensibility, except a slight twitching of the eye-lids when the conjunctiva was touched. The pupils were contracted to the size of a pin's head. Respiration was shallow, irregular and interrupted, and numbered ten to twelve per minute. The extremities were cool and the face somewhat cyanosed. The pulse beat regularly, though feebly, 110 per minute. To my surprise, auscultation showed the *absence* of all adventitious sounds over the region of the heart.

Despite the gravity of the symptoms, I felt only a slight degree of alarm, when I considered the improbability of so small a dose of morphia proving fatal. Being compelled to leave, I merely directed the attendants to keep up circulation, by friction of the extremities. At 3 P. M., the condition of patient was unchanged, except that the extremities were more difficult to keep warm. Temperature in the axilla was  $97.4^{\circ}$ . The breathing was not at all better, and insensibility was, if possible, even more profound than at my previous visit. I injected 1-20th grain sulph. of atropia under the skin of the forearm, and during the next hour I made frequent applications of a moderately strong galvano-faradic current, one pole being placed in the epigastrium and moved along the insertion of the diaphragm, while the other was pressed upon the middle of the neck just behind the sterno-mastoid muscle. The heart's beat was temporarily strengthened, and respiration slightly increased in depth and frequency by each application. At 4 P. M., I injected 1-12th grain of atropia, continuing the use of electricity. At 5 P. M., the

circulation appeared to be failing, the pulse being decidedly weaker and the extremities cold. Respiration was about 15 per minute, irregular and shallow. The pupils were still obstinately contracted. I now injected 1-6th grain of atropia and placed a bottle of hot water under each arm, and a large jug to the feet, still employing electricity at intervals. At 6 P. M., the change in my patient was evidently for the worse. To be sure the body was warm (100° F.); but the pulse at the wrist could only irregularly be felt. The heart contracted feebly but regularly 115 times per minute. Respiration was more shallow, although now 18 to 20 per minute. The pupils were unchanged, and there was absolute insensibility of the conjunctiva. I now injected  $\frac{1}{4}$  grain of atropia. In twenty minutes the effect of this dose was perceptible. The pupils were widely dilated, and respiration increased to 30 per minute; but alas, the heart, although it contracted 130 to 140 times per minute, failed to convey even the slightest impulse to the wrist. Cyanosis had disappeared but the insensibility continued.

During the next seven hours, I injected into the bowel  $\frac{1}{2}$  oz. of whiskey every half hour. All of it was retained. During this time, the patient occasionally made an unconscious effort to swallow the mucus which accumulated in the fauces, and succeeded so far as to diminish temporarily the rattling and gurgling which now accompanied every respiration. Several times after this effort at swallowing, respiration had to be stimulated by the electrical current. At midnight there was a slight convulsion, after recovery from which the patient again lapsed into the same condition. Gradually there was an increase in the rate both of circulation and respiration, until at 4 A. M., the heart beat 150, and the breathing was 36 per minute. There was no dirotism, but the heart's contraction was steadily becoming more feeble and imperfect. The pupils were still widely dilated, the extremities warm, and the temperature 101°. Fifteen minutes later the heart ceased to beat, and death supervened without a struggle.

For my own sake, as well as for the good of the profession, I invite the most rigid criticism of the above report. The case in many ways is both interesting and instructive. Was this a case of opium poisoning? The symptoms appear to answer this question in the affirmative. I have so frequently given a similar, and

even a larger dose in pressing emergencies, without the least unpleasant effect, that I find it difficult to realize the fact that this patient was fatally poisoned by  $\frac{1}{2}$  grain of morphia. Such an unlooked for result has given a terrible shock to my confidence in the safety of large doses of morphia under any circumstances. The heart lesion of it before existed, evidently did not influence the result, as all signs of it were gone when I examined, three hours after the administration of the morphia, and they were not reproduced, even under the stimulation of electricity, atropia and whiskey.

Did I give too little atropia? Three doses of 1-12th grain each, sufficed to counteract the poisonous influence of  $1\frac{1}{2}$  ozs. tinct. opii, in a case which presented much graver symptoms of poisoning, (vide pp. 65 and 66 N. C. MED. JOUR., Feb., 1879). Was I too slow in administering the antidote? In the present case the use of atropia was commenced six hours after the morphia was exhibited, —in the case above cited five hours elapsed before any atropia was given. In the case I previously reported, an aggregate of  $\frac{1}{4}$  grain was given within seven hours after the opiate was taken, in the present case  $\frac{1}{2}$  grain within eight hours. Did I give too much atropia? At a single dose, Dr. Fothergill gave 1 grain in a similar case, and the patient recovered.\* (*Antagonism of Medicines*, p. 133). Should I have given digitalis or strychnia hypodermically to further stimulate the heart? That poor organ appeared to be doing its best, and to tell the truth, I felt that I had had enough of hypodermic medication for one day, and felt unwilling to risk anything more, after being so disappointed in my expectation of relief from atropia. I am open to conviction upon any one or all of the questions I have propounded.

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In the light of our present knowledge of laceration of the cervix uteri, Dr. Whitehead's article on "Hypertrophic Elongation of the Cervix Uteri" (Trans. N. C. Medical Society, 1875, p. 90), has peculiar significance.

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\*N. C. Medical Journal, Vol. 1, p. 177.

## LARYNGO-TRACHEOTOMY.

By CHARLES DUFFY, SR., M. D., Catherine Lake, N. C.

Read before the Onslow County Medical Society, September, 1878.

*Gentlemen of the Onslow County Medical Society:—*

I was written to sometime ago, by a member of the State Medical Society, asking my views in regard to operating on the windpipe. My experience in such operation has been very limited, six times being the maximum of my labors in that direction. My first was a failure, done for the relief of cynanche trachealis, the operation being performed too late.

The other five cases succeeded admirably: four of the patients ranging from eight months to three years old, the other a woman of middle age. The first of these cases was operated on for the removal of a watermelon seed. The child was less than  $2\frac{1}{2}$  years old, and was very fat, so much so that the depth from the surface, would seem to forbid approach to the external surface of the trachea, still less to the internal, but by patience and perseverance these difficulties were both overcome, and respiration rendered comparatively easy. The next idea, was to get out the seed, and one attempt after another was made to no purpose, the wound inclined to close at the same time. I next lengthened the incision, and the sides of the wound were well drawn apart. My next step was to trim off the sides or edges of the cartilages; this being done, gave the seed a fine opportunity to present itself, and the child was placed in a cradle and diligently watched, with orders to take him in the arms and walk about with him, in case of difficulty of breathing coming on, which had to be done from time to time. The seed was expelled through the aperture to our great joy and gratification, several hours after the last step of the operation. The child was a son of Mr. Thomas Holland, of this county. He grew to adult age, and was killed by a horse running away.

From this case I learned that the removal of foreign substances by forceps or other instruments, except they are metallic substances is seldom necessary, there would be much more difficulty in retaining them or preventing their escape. As soon as the windpipe is cut into there is a rush of wind that follows, that moves the substance by the double ability or means of respiration, caused or provided by

the operation, and the next we know the substance is expelled. Certain it is, it is not going to stay there, if there is room for its escape and the patient is rightly attended to. When certain that all has come away, apply adhesive plaster drawing the parts together, a stitch or two might be necessary in some cases, it soon gets well.

My next case was the woman alluded to, the wife of Mr. Amos Wooten, of New Hanover county. A piece of beef gristle got into the wrong passage. After several spasms, and vain attempts to get it out she sent for me. I got to her as soon as possible—the distance being sixteen or seventeen miles. On enquiry I learned the particulars of her case. I found her composed. I told her it might not be in the windpipe, and we had better be certain about it. I passed a probang down the œsophagus and found that it was not there. After waiting a little longer, she had a violent spasm that hurried and increased her determination to have it out. So violent was the spasm, that it created doubts on her mind as to her chances of living, or of being able to bear up under the operation. She next turned her head toward me and remarked that she was ready. I had no medical assistant with me. I operated without chloroform—the woman fainted. There was camphorated spirits close by, and I sprinkled it heavily and forcibly in her face and over her chest, and rubbed some in her mouth. She revives with a vim and sends the gristle forcibly, not only out of her mouth, but nearly out of doors, rejoicing all hands around.

I applied sticking plaster and left; saw her in a few days; she was well.

My next operation was on the child of Mr. Enoch Foy, who had the misfortune to get a watermelon seed in his windpipe. The usual symptoms occurring, he came on with his little boy and had him relieved—the seed coming out several hours after the operation.

The next was a child of Mr. Marshall, (another fine boy), another case of watermelon seed, which was operated on with like success.

My last case was a child 8 or 9 months old, a very pretty and fine little girl, the daughter of a Mr. Padjet of this county. She had been playing with an ear of corn, given to amuse her; some of the grains coming off and one and a half getting into the windpipe, as shown by the sequel. She was operated on, assisted by Drs. Cox and Nicholson. The foreign substance did not come out as soon

after the operation as the other cases. The wound was not kept open by the attendants, and in consequence I had to re-visit, reöpen and somewhat enlarge the incision which was attended with the usual good results. The child was very fat, and the space for operating in so young a child, was necessarily very limited. One grain of corn and the part of another was expelled. I will next give my "modus operandi," or rather my imperfect manner of operating.

The patient being laid on a suitable table, with the chest elevated, by placing a pillow or folds of cloth underneath. The head is next laid back neatly observing the direction of the mesial line strictly, and throughout the operation. The instruments previously got ready, and those which I prefer, are a scalpel with a sharp handle, a director and probe, two bistouries, one sharp and the other button pointed, a forceps, tenacula, sponge and ligatures. But so far I have never needed the ligatures. I have always stopped any little bleeding that occurred by applying a pencil of nitrate of silver. All these ready, also a basin of cold water, standing on the right of my patient, I place the finger and thumb of my left hand, one on each side of the thyroid cartilage, and commence my first incision from its lower third if a child, and from its lower edge if an adult, for obvious reasons, namely: In the child we want room, and if necessary can enlarge the incision in that direction, with but little difficulty, the cartilage affording no resistance. In the adult we have more room, and the cartilage is often found hard, and unyielding in persons of advanced life, and it is therefore necessary when enlargement is required in the adult, to cut an additional ring or more of the trachea. I continue my incision below the cricoid cartilage, so far as one or more of the rings of the trachea. The track of the operation being now laid off, I proceed cautiously, an assistant sponging, and applying caustic, as may be necessary to arrest any little bleeding that may ensue, whilst I, with the handle of my knife, push aside any vessel likely to bleed—cricoid artery or otherwise. I next lay hold on the cellular sheath of the trachea, at the lower edge of the track of my operation, and at this point I enter with a sharp pointed bistoury, holding it close to the point, and cutting upward not more than one-eighth of an inch and withdraw it in favor of the button pointed bistoury, with which I slit

upward the windpipe, as far as the starting point of the first incision—not moving the instrument back and forth, but holding it perfectly steady, carrying it or rather pushing it, aided by the other hand from below upward, with the handle of the knife inclined downward. The operation now done, is made known by a whizzing which it is necessary to look after, and as all-important. I consider it the safety valve of the patient.

This operation may also be performed from above, downwards, with a sharp pointed bistoury, holding it not far from the point; the forefinger on the back of the knife—taking care to help the cricoid artery out of the way, which I have always been able to control when cut, by the application of nitrate of silver. The patient may be, if necessary, turned on the side to prevent blood from passing into the windpipe.

I begin close by the lower edge of the thyroid cartilage, and carry it so far as the second ring of the trachea; but in either case, whether I open upward or downward, the tenaculum can materially assist in the operation, by drawing down the tube when cutting upward, or by drawing upward when cutting downward—the hook to enter behind the knife in either case.

The use of the hook is most necessary when operating on young children. The object in pushing the knife, holding it steadily, is from knowing that it long since has been found, that an artery will give way before a knife when carried in this way that might otherwise have been cut immediately by a “see-saw” motion.

After the operation is performed, I direct the attendants to keep the opening clear of obstruction—bloody froth, &c., or anything that may make its appearance in the wound. Artificial respiration must be kept up until the foreign substance is expelled or removed. A probe or knitting needle will suffice for that purpose, one or the other must be used several times a day and night, in fact as often as needed; I use no gauze, it might get sucked to, or drawn into the opening, and thereby defeat the intent of the operation. In cases needing the use of the canula I make no reference.

I prefer laryngo-tracheotomy, sometimes denominated circo-tracheotomy, which I have been endeavoring to describe, to any other, for all ordinary purposes. We have less risk, and more room, and it is more adapted to the relief of children and might with pro-

priety be called the higher operation to distinguish it from tracheotomy, which rightly speaking is the lower operation. This would draw a distinction between the two, and it is necessary that line should be observed, and that when these operations are spoken of, we should know what importance to attach in either case, and give to either operation the degree of approbation it may deserve.

I cannot close this subject without giving the opinion of a very able anatomist regarding it, Harrison, of Dublin. In the first place he speaks of an irregular artery, which he has seen running along the front of the trachea to the thyroid gland and cellular membranes beneath it. He had seen this so frequently in this situation, that he describes it under the name of the middle thyroid artery. "This is" he says "so common an occurrence that it should be remembered by the practitioner of tracheotomy." He further goes on to say, "in children the space for tracheotomy is very limited," and directly that "particular attention be paid to the inconsiderable portion of the trachea that can be exposed between the thyroid gland above, the arteria innominata, the left carotid artery, the remainder of the thymus gland below. The deep thyroid veins also descending to the vena innominata obscure the trachea very much, these together with the great mobility of this tube, add to the danger and difficulty of this operation." Pancoast says: "The checking of hemorrhage from the veins and arteries divided in tracheotomy requires particular attention; from six to eight ligatures are usually employed. They should be applied in general as the vessels are cut and before the opening of the trachea as there must be blood drawn by respiration into the trachea and thereby endanger life."

These dangers constitute shoals and quicksands to the anatomist and surgeon, that has made many a one shudder at their approach. The six or eight vessels to tie, before daring to open the trachea, causes delay dangerous to life, as well as to the success of the operation, and brings into question the propriety of the operation, and sometimes the skill of the physician. In the upper operation, laryngo-tracheotomy, you can enlarge the opening upward whenever necessary, with but little risk, by cutting through the thyroid cartilage. In fact, it may be opened above or below, one or both, with but little risk; whereas in the lower operation it is almost



impossible to do so. When it becomes necessary, the safest plan is to enlarge the opening upward, as much as is practicable, and downward as little as we are able to get along with. The space taken up by the lower operation on children is very limited, and the operator must necessarily be cramped for want of room. The cervical portion of the adult trachea is laid down at from two to two and one half inches long. It is composed 18 or 20 fibro cartilages, this makes the space between each ring 1-8th of an inch. According to that measurement, allowing the 20 rings for  $2\frac{1}{2}$  inches makes the space taken up by cutting three rings 3-8ths of an inch long in the adult, if no more is divided, and proportionately less in the child. We can readily understand that those operating in this region do as little cutting as possible, and although the operation so far as the outside incision, may begin at the cricoid cartilage, and terminate as at a little distance from the fossa at the top of the sternum. I have no idea that the trachea is often laid open to that extent. Pancoast directs, "that after separating the two sterno-thyroid muscles, partly with the point and partly with the handle of the knife, and finding no large vessels in the way, pushes up, or if necessary divides the isthmus of the thyroid gland." The next cutting he speaks of, is, "that of the third, fourth and fifth rings, puncturing the tube, with the point of the knife below the fifth ring." He then speaks of running the scalpel upwards with the handle inclined to the sternum, so as to avoid injuring the posterior wall of the trachea. It is easy to perceive in the practice of the present day, that this operation is done for, and best suited to the insertion of the canula, and that the opening of the third, fourth and fifth rings of the trachea can, when divided, answer by binding the canula, a much better purpose than a larger opening, which would allow it to move about, thereby incurring the danger of displacement.

The word tracheotomy as a general term does harm. We ought rather to particularize, and make known on what part of that tube we operate, and not speak of tracheotomy as though it were of little moment in the performance, and that one part of the wind-pipe cut into, was as much a tracheotomy as another; not by any means should this be thought. I consider that tracheotomy strictly, and according to the definitions of anatomy and surgery, is one of

the most dangerous that come within the province of the surgeon ; and, on the contrary, I consider laryngo-tracheotomy, or crico-tracheotomy as it is sometimes denominated, a very simple operation, and only requiring ordinary tact in the performance.

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Since the above article was written, this operation has been successfully performed by Dr. J. L. Nicholson, assisted by myself and Dr. C. Thompson.

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#### MR. GRANT GIVES THE FOLLOWING RULES ABOUT FOREIGN BODIES IN THE EXTERNAL EAR.

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1. Be sure that the foreign body is *seen*. To attempt to extract a foreign body without first seeing it is highly dangerous.

2. Determine what the body is, and, if possible, obtain a sample of the body supposed to be in the ear.

3. Remember that a body which will not swell, and has no cutting edge, will generally remain without causing any urgent symptoms.

4. Seeing the body, determine with a probe if it be movable. If easily movable, concussion with a downward position of ear will often remove it.

5. Warm water injection is the best of all methods of removing foreign bodies.

6. If it be a vegetable substance, do not inject fluid unless you have time to extract the body either at one operation, or shortly afterwards.

7. Injection failing, which is very exceptional, a surgeon, with the necessary appliances, ought to be at once consulted, or should urgent symptoms arise from the irritation in the attempted extraction, the extraction by the incisions, galvano-cautery, boring out by trephine or conical file the centre of substance, and so causing its collapse ; or even detachment of the auricle may be necessary.—*The Medical Press and Circular*.

## SELECTED PAPERS.

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### THE YELLOW FEVER AT HAVANA—ITS NATURE AND TREATMENT.

By CHARLES BELOT.

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*(Concluded from page 165).*

It is at the moment even, of this remission, that sulphate of quinine must be administered in a dose of thirty-six grains taken at once in a half cup of black coffee without sugar. When the intermission is complete, its action is marvellous, the disease is immediately moderated; but if there is no remission, it is necessary to be prudent, for sulphate of quinine, because of its powerful action, can do much harm, if it is not indicated. When the disease commences with chills, followed by abundant sweats after the emetic and purgative, there is assurance, that there will be another remission, and then the sulphate of quinine is preëminently the remedy. But when there are no chills in the commencement of the disease, when the prominent symptoms are heat and dryness of the skin, and the fever continues, the exacerbation will not be long delayed, and no propitious moment can be found to administer the anti-periodic.

In cases where sulphate of quinine cannot be employed, calomel is an excellent remedy, especially when in the absence of remission, the tongue shows itself humid, loaded, white, large, the gums engorged, the stools difficult, or when there is bilious diarrhœa. Under these circumstances, calomel taken in purgative doses every half hour, until the characteristic stools of this remedy appear. Very often, after the administration of calomel, remission of the fever and of the congestive symptoms takes place; the skin becomes moist, and sulphate of quinine, the effect of which will be more sure in proportion to the distinctness of the remission, may then be appropriately used. Its effect is assisted by oil and by emollient injections. If there was no chill in the commencement, aconite and tincture of digitalis will be pressed. These are ordinarily sufficient to bring the patient into full convalescence.

The action of calomel and of sulphate of quinine has led some medical men to employ these remedies, united in the same formula.

I have never understood the effect expected from this, and my experience has not proved the result satisfactory. When one is fortunate enough to have determined an intermission, frictions of sulphate of quinine produce a good effect. Calomel is not indicated, when the disease following its course, the alterations of the coat of the stomach become more observable, the epigastric pain more violent. In this case recourse may be had to the treatment heretofore recommended.

We have seen already, that there are three kinds of black vomit—that formed by bile, that formed by decomposed blood, and finally, that which is a mixture of these substances. The most numerous cases of cure are those, in which the black substance is formed by bile, and in these bicarbonate of soda and nuxvomica will ordinarily triumph. But if the black vomit is formed from decomposed blood, there is no treatment which can result in positive action.

When cerebral symptoms predominate, with delirium, restlessness, etc., recourse should be had to blisters, to compresses upon the forehead of cold water and of brandy with belladonna, and to the administration internally of calomel alone, or combined with opium. This combination is valuable—it calms the cerebral excitement. When the delirium is violent, it is dissipated or quieted by an infusion of valerian.

Hiccough may be arrested by compressing with the fingers the phrenic nerve on the level of the os hyoid. In other instances, it yields to the application of cold water on the stomach to opium, to belladonna in small doses, to ice swallowed in small pieces.

When hemorrhages occur, the most appropriate remedies are acids, astringents, and iron. Local, such as buccal hemorrhages, yield to lotions of diluted sulphuric acid every half hour, or to gargles of borax. The best means of resisting epistaxis is by application of ice to the forehead; at the same time, by acid injections into the nostrils. Plugging of the anterior openings of the nostrils would be insufficient, because the hemorrhage is passive, and comes from the whole surface of the nasal mucous membrane. For anal hemorrhages, acid injections, the application of cold to the abdomen, and tannin given internally, are prescribed.

General hemorrhage, that is to say decomposition of the blood, is combatted with tannin or perchloride of iron administered every two hours, with lotions of vinegar or of wine of cinchona, applied over the whole body.

Hematuria is combatted with weak sulphuric lemonade.

It is during the period of hemorrhages, that the parotids become swollen—a frequent indication of amelioration of the general condition. When pain or swelling appears, I apply tincture of iodine three times a day externally, *loco dolenti*. During the epidemic of 1862, I had twenty-nine cases of inflammation of one parotid, and seven of both parotids, and lost but one patient. I attribute this success to iodine. When suppuration does not invade the whole gland, premature incisions must be avoided. They would produce the serious inconvenience of retarding the cure, of making the patient suffer uselessly, and of occasioning hemorrhages difficult to arrest.

The tumors which show themselves on different parts of the body ought to be treated with topical tonics. Compresses soaked in wine of cinchona, facilitate resolution. It is not necessary to open these tumors; this would expose them to hemorrhage.

During the first period, slightly acidulated drinks are prescribed, warmed to promote diaphoresis; in the second, the patient takes cool beverages; in the third, tonics are preferable.

During the whole course of the disease, absolute diet is essential. There must be no indulgence on this point. Often a little broth, given before the period of remission, is enough to bring on indigestion, then reëction, and finally death. In the second period, there is sometimes a sensation of false hunger, which deceives the patient; but the least compliance on the part of the physician might be fatal.

To be more exact, we now proceed to examine singly each one of the recognized therapeutic remedies against yellow fever:

*Bleeding.*—I consider general bleeding injurious, except with individuals of apoplectic temperament, presenting symptoms of inflammatory fever. I repeat that cupping is preferable to leeches. I have already so insisted on this mode of application, that it is useless to allude to it again. I will say only, that it is necessary to employ the spring scarificator, and never the lancet or bistoury.

*Pediluvia*.—Foot-baths are perfectly associated with cuppings, to diminish local congestions. They ought to be given in the manner following: The patient lying on the back, draws his thighs upon the stomach, the legs upon the thighs. In this position the feet and legs are placed in a vessel filled with warm water, the temperature of which is gradually increased, until it becomes unendurable. The bath ought to last from fifteen to twenty minutes. Its effect will be increased by the addition of powdered mustard. When taken from the water, the feet should be carefully dried, and mustard plasters applied to the thighs and allowed to remain as long as the patient can bear them, when they will be removed, and placed on the calves of the legs.

*Emetics*.—Emesis is one of the most important remedies in the first, but becomes injurious in the second period. Black vomit often comes soon after the administration of an ill-judged emetic. The principle indications are these—the tongue humid, saburral, charged with whitish mucons deposits, nausea, disposition to vomit, bad taste in the mouth, the temperament bilious, constitution lymphatic, atmosphere damp, etc. Administered under these circumstances in the first period of the invasion, the emetic is a heroic remedy. I prescribe thirty grains of ipecac, dissolved in six ounces of distilled water, taken in one draught. Nausea soon occurs, and as soon as the patient begins to vomit, the effect of the medicine is assisted by drinks of warm water. The food contents of the stomach are first ejected, then bile. The drinks of warm water should be continued, until the liquid ejected is as clear as the water that is swallowed. After the vomiting, the patient takes one or two cups of tilia. Ordinarily, the congestive symptoms of the brain increase, by reason of these efforts, but after a short repose and a little sleep, the skin becomes covered with sweat, and on awaking, the pain in the head is sensibly diminished.

I prefer ipecac to tartar emetic, because the action of the former is more gentle and more constant, and because tartar emetic irritates the mucous membrane of the stomach. After ipecac, the patient remains calm, whilst after tartar emetic, the nausea continues, and is very often followed by diarrhœa. I insist strongly on patiently awaiting the effect of the ipecac before giving warm water, because prematurely swallowed, this embarrasses instead of promoting the effect of the medicine.

Let us, however, observe, that ipecac, if useful when clearly indicated, may produce deplorable consequences, if administered despite counter-indications. In my experience, it is counter-indicated, whenever the period of invasion is passed, and even during the period of invasion, when the patient has not been attacked immediately after a meal, when the disease has not commenced with chills, when the individual is plethoric and is subject to cerebral congestions, or when he complains of pains in the stomach, even when fasting.

The first twenty-four hours of the invasion passed, the emetic can have fatal effects. At this period, indeed, the stomach and abdominal organs suffer in a manner more direct, and the efforts of vomiting increasing, these local congestions may determine a condition as much more difficult to encounter, as the period of the disease is advanced. How often have I seen black vomit appear after an emetic improperly given! I have seen under the same circumstances epistaxis which could not be arrested, and such irritability of the stomach, that it could not bear anything.

*Purgatives.*—Purgatives are of as great importance as emetics in the treatment of yellow fever.

After the administration of the emetic and a repose of twelve to twenty-four hours, the purgative may be used to induce action by the intestines. It slightly excites the secretion of mucus, and facilitates the circulation and the passing of bile by the stools. Drastics should be absolutely excluded, their too violent action producing injurious irritation. Among the purgatives I recommend, above all, castor oil alone, or associated with oil of sweet almonds. When judged proper to be administered alone, two ounces at least should be given at once. When mixed with oil of sweet almonds, three ounces of the first, and two ounces of the second, adding some drops of lemon juice, unless it is preferred to give the patient a slice of lemon, after the potion, to prevent vomiting.

The action of castor oil is a little slow, but it should be assisted with injections of olive oil and warm water.

If the patient has an antipathy to castor oil, sulphate of magnesia is administered, in a dose of one ounce in a half tumbler of fresh water, with the addition of six grains of nitrate of potash. The

mixture of these two remedies produces secretion of intestinal mucus, acts upon the kidneys, augments the secretion of urine, and at the same time excites diaphoresis.

This mixture ought to be given in small doses, every half hour, as the stomach will bear it better. Given in this way it is sometimes vomited in part, so that there should be no attempt to give the remainder. If its action is delayed, it should be assisted with injections slightly purgative, warm sea water, or sulphate of magnesia, mixed with olive oil. During the action of the purgatives, especially of sulphate of magnesia, the patient may drink as much fresh water as he wishes.

Obstinate constipation, indicating a congestive state of the brain, will be combatted with Seidlitz water. The different purgatives generally bring on a calm, and marked relief.

Other purgative substances are employed, among which I would cite rhubarb and Seidlitz powder, or Seidlitz water. They are particularly indicated in the jaundice of the second, and in the commencement of the third period.

The counter-indications of purgatives are colliquative diarrhœa, the third period of the disease, hemorrhages, especially those of the anus. Feeble and lymphatic temperaments do not endure them well. They should be given to women and children with caution, and in small doses frequently repeated.

*Calomel.*—We have spoken of calomel, the action of which, so different according to the dose, is here formally indicated, either as a purgative, or as an alterative, or as a derivative. We have seen, that emetics were counter-indicated with persons too robust and disposed to cerebral congestion. It is in these cases, that calomel should be employed, at least, when there are no symptoms of local irritation or inflammation of the stomach. But if the tongue is loaded, humid, large and saburral, without redness of its borders, if the region of the liver is painful, the indication for calomel is more precise.

For a purgative dose there will be given every half hour from three to six grains, until the patient has taken eighteen. If, after having obtained the purgative action, it is necessary to continue the medicine for a certain time in smaller doses, as a derivative, it is given in doses of two grains every hour, until the characteristic greenish stools are obtained.



Calomel is still applicable, when constipation persists, despite the employment of sulphate of magnesia. Administered then, every hour, in grain doses up to twelve, it works marvellous effects. I have seen convulsive symptoms disappear after the administration of this remedy. One of its inconveniences is ptyalism, but this is obviated with the aid of Seidlitz powder. Very often when it has been given after the emetic and sulphate of magnesia, calomel is sufficient to produce a remission, when there has been none.

*Sudorifics.*—When the remedies, of which we have spoken heretofore, do not bring on a remission of the symptoms, it is well to look to sudorifics, which, facilitating the peripheric circulation, produce a general relaxation, and with this an abatement of the pulse. Among the sudorifics, I commonly select Dover's powder, and the liquid acetate of ammonia or spirit of mindererus.

The latter administered in doses of twenty drops, in four ounces of flower of elder, acts as an antiseptic and sudorific. It is indicated, when the skin is dry, with the sharp heat so common in yellow fever of the continued acute type, without remission. I have often seen individuals stubborn to sweat, despite the purgative, transpire abundantly after some doses of this medicine.

Dover's powder suits, when the patient has dry skin, is restless, and turns over in his bed uttering deep sighs. I give for the dose, every two hours, from three to four grains in two or three spoonfuls of infusion of tilia, warm or hot. After the second or third dose, the patient becomes more calm, sleeps, and wakes covered with sweat. The effect of sudorifics will always be assisted by a mustard foot-bath.

Some medical men have considered the transpiration so useful, that they have made it the basis of their treatment. In the outset, they prescribe a steam bath. I have tried this but without advantageous results.

When transpiration is determined, the pulse remains full and strong, diuretics are indicated, and among these powder of digitalis associated with nitre.

*Sulphate of Quinine.*—Sulphate of quinine is one of the most powerful and most useful remedies in the treatment of this disease; but it must be well indicated, well administered, and in a

suitable dose. What are the indications of sulphate of quinine in yellow fever? There must be at least remission, if there is not complete intermission of the fever. Its application is then excluded from the continued type. When the fever has yielded, by the use of the medicines of which we have spoken, or when, with sweat or moisture of the skin, the pulse has sensibly lowered, the employment of quinine is always good. Its effect will be shown; for the strongest reason, in the intermittent type. In this last case, it acts with the same precision and the same success, as in simple intermittent fever.

As sulphate of quinine has a prompt and durable action; the mucous membrane of the stomach ought to be in the best possible condition for absorption. It must, therefore, be empty. An emetic and a purgative, at least the latter, should precede the administration of sulphate of quinine. I know that there are medical men, who administer quinine in the height of the fever, regardless of the state of the stomach and of the mucous membrane. If they have found this treatment beneficial, it is by chance; for it is illogical, and its effects are commonly deplorable.

As for the dose in which sulphate of quinine ought to be prescribed, it depends on the age, sex, and temperament of the patients. For adults and men, the average is twenty grains in a single dose, in about three ounces of black coffee, without sugar. If it is feared, that the irritated stomach cannot bear so strong a dose, it should be dissolved in a few ounces of distilled water with a sufficient quantity of sulphuric acid, and given every hour by the large spoonful. If the stomach cannot bear this, give an injection of a double dose, with the precaution, not to inject more than one ounce of liquid at once, every hour. The action of the medicine will be assisted by friction of quinine ointment along the vertebral column, on the articulations of the wrist, knees, and under the arm-pits, etc.

Some enthusiasts consider sulphate of quinine, as a preventive, and direct it to be taken in a perfect state of health, or administer it in the outset of the fever. I have tried this without having felicitated myself. I will say as much of the association of calomel with sulphate of quinine. This combination should be rejected.

I have nothing to add to what I have already said as to blisters.

*Bicarbonate of Soda*—*Nux Vomica*.—When the patient complains of nausea, disposition to vomit, of eructations warm and acid, that he feels in the throat and liver a burning sensation, bicarbonate of soda is the remedy indicated. I give it in doses of one gramme in six ounces of distilled water, taken by the spoonful every hour.

I have stated before, how and under what circumstances *nux vomica* ought to be given. The effect of these two last remedies is often much more sure, if their action is assisted by cold fomentations upon the abdomen, perhaps with cold water alone, or with camphorated alcohol and belladonna.

*Belladonna*—*Camphor*.—Compresses of camphorated alcohol and belladonna, placed upon the epigastric region, diminish the beating of the celiac trunk, the epigastric pain, and the vomiting. Laid at the bottom of the abdomen, they quiet the colic pains and facilitate the passage of urine. Camphor alternated with belladonna, finds its use internally, in combatting hiccough, and camphor alone is especially useful in the typhoid period of the disease.

*Tannin*.—Tannin diminishes the excitement of the stomach. I recommend its employment, where nitric acid reveals the commencement of albuminous deposit in the urine. Its use must be suspended, if the albumen persists or increases. Tannin is administered every hour, in grain doses in a spoonful of water. When the twelfth grain has been given, and it works no favorable change, it is replaced by arsenic.

*Arsenic*.—Towards the end of the second period, when the vomiting cannot be arrested, when the patient has continual nausea, when the vomit contains bile or mucosities filled with blackish or sanguinolent streaks, in a word when the characteristic signs of pronounced yellow fever are developed, there is no better remedy than arsenic. It is given as arsenious acid dissolved in water, and prepared in the following manner: Boil for an hour a grain of arsenious acid in a porcelain cup, containing a half pint of distilled water; then replace the evaporated liquid with an equal volume of boiling water, let it cool, and give this solution by the teaspoonful every half hour, until the nausea and vomiting cease.

The administration of this remedy is continued for two days, at longer intervals; that is every hour, then every two hours, finally every four hours. Prescribed under fitting circumstances, arsenic often brings unhoped for amelioration.

There are some medicines, whose action, though certain, is inexplicable. Such is arsenic, the influence of which must be accepted as a fact, without considering theories more or less satisfactory. I should add, that arsenic often determines a deceptive hunger, to which there should be no concession, because at this period of the disease, the lightest broth might cause fatal indigestion.

I have tried every possible remedy for black vomit, and there is not one, which has constantly give the same result. I have had extraordinary success with agents, which at other times produced no effect; and I affirm, that there is no therapeutic agent, which can always be employed with entire confidence. Black vomit is the symptom of alteration, more or less profound, of the bile and of the blood. If it is alteration of the bile, presenting solely the black color of jet, hope remains; but when the vomited matter is of the color and consistency of coffee grounds, the patient is irretrievably lost. This truth rests on an experience of forty years.

It is not surprising then, that under a great number of circumstances, the most heroic agents are absolutely ineffective.

*Iron.*—It is not necessary to give iron in too large doses. The two best ferruginous preparations are iron reduced by hydrogen, and the muriatic tincture of perchloride of iron. Small doses, often repeated, are much more easily absorbed than large doses. A quarter of a grain of powder of iron every hour, or a drop of perchloride of iron in three ounces of water, taken by the spoonful, every hour, is all that the stomach can bear; more is rejected by the stool or by vomiting. The reconstructive action of this remedy will be assisted by cold lemonades, and by ice in small quantities. Cold vinegar lotions over the whole body, frictions, enveloping the patient in sheets wet with cool vinegared water, compresses of cold vinegared water on the abdomen, changed as soon as they become warm, are adjuncts, which should not be neglected, and which will always be found good.

*Ice.*—Ice is one of the agents greatly abused, especially in the

first and second period. It is an excellent tonic ; but I am not well assured of its employment in the third period.

*Drinks.*—During the first period, the diet drinks ought to be warm or hot, to facilitate the diaphoresis so necessary at this time. But in the second and third period, there is used only cool water, slightly acidulated, and sweetened *ad gratam saporem*. In the great majority of cases the patient prefers simple water.

*Regimen.*—Absolute diet is demanded, rigorously, while the fever lasts. But when the febrile symptoms have disappeared entirely, and at the same time local congestions dissipated, a little thin broth may be allowed.

A certain sensation of hunger is felt, especially towards the end of the first period ; but the desire of the patient must be resisted, although the pulse may be less frequent and less full. Often at the first touch, the pulse seems regular, but the attentive physician will find something abnormal, and he will soon be assured, that the improvement is more apparent than real.

*Convalescence.*—The greatest care should be given to convalescents, because relapse is often fatal. The nourishment ought to be select and the patient should not be exposed to the sun or to the influence of the moon. When the disease does not go beyond the first period, convalescence is much shorter, if there is no leading organ assailed ; but if it reaches the second and third period, especially that of hemorrhages and profound alterations of the blood, convalescence is long and painful, and often leaves its traces during the whole life.

When restoration is complete, wine of cinchona, wine of iron, cold baths, and sea baths are prescribed. In cases of swollen parotids, convalescence is prolonged during many months.

Is it possible to prevent a disease, which makes such ravages ? Its entire destruction seems to me an unrealizable utopia, because we have seen, that one of the causes of its existence is in the atmosphere : but it is certainly possible to diminish its effects, and to avoid it, when it exists. A well observed hygiene would give the best results, and the government, which would attach its name to this undertaking, would deserve well of mankind.

Besides the causes of the disease, described in the commencement of this memoir, there is one important cause, in the collection of

persons living together under the same roof, especially in barracks. These establishments are designed to shelter, day and night, strangers, who expose themselves without precaution to sun and to damp, and who drink, and eat, as if they had nothing to fear. These barracks ought to be built on elevated places, far from the city, and from the seashore, and especially, be well ventilated. The surgeon of the regiment, should have a roll-call three times a day, and, on his responsibility, put in the infirmary, and on diet, any one, who complains of the least headache.

Instead of sending to one hospital only, the sick coming from garrison and from government ships, several military hospitals ought to be established. Every barrack should have its infirmary, with medical service, and the sick should not have to cross the city to obtain treatment. There is no disease which develops contagious miasm more suddenly than yellow fever. A large accumulation of sick in the same place, is a certain source of disease and contagion.

On board of vessels, a good hygienic system would greatly diminish the number of the sick. In ordinary times, government vessels should not have full crews. The men will then have a sufficient quantity of air to breathe. They should not be drilled in the fierce heat of the sun, or in rain, and they should be required to go to the surgeon, for the least pain in the head.

We have observed, that the incubation of yellow fever, is from ten to twelve days. It will be prudent then, in the heated term, not to remain in port more than six days. English vessels have the habit of not remaining more than three days, but they cruise in the vicinity, or go to Jamaica, so that they are always exposed. The best plan would be to leave the waters of the Gulf, which is the true centre of infection. When, despite every precaution, there are sick men on board, and their condition inspires apprehension, they should be put ashore at once, the vessel whitewashed, and sail set for other latitudes to the north.

Commercial are not under the same conditions as government vessels. On the former all is sacrificed to speculation. The crew is lodged as closely as possible, and ten or twelve men are often seen in a space, where four men can scarcely lie down. The government should require the lodgment of the crew to be on

deck, so as to allow free circulation of air. Their food should be wholesome, and well chosen, and instead of giving the crew fresh meat every day, it is better to continue giving them salt meat which is more wholesome, and more nourishing. Let us add, that the meat of the country, bought by merchantmen, is not of first quality.

There are some captains, who, to shun the invasion of the disease, engage blacks to load and unload their vessels, and during this time, leave their crews inactive. This plan is of no avail. The crew is generally composed of strong men, habituated to bodily exercise, which facilitates transpiration. They require, therefore, moderate labor.

The water of the country is bad, and it would be good to add to it a little brandy or rum. This drink is better than wine, or beer, which are adulterated and often give colic.

Prophylactic remedies have been much recommended. In latter times, chlorine on board ships was extolled, and has fallen into disuse, like others I have tried without satisfaction. I have seen a captain, who, convinced of possessing the universal panacea, neglected his sailors, and they became gravely sick. Prophylactics can not have any action on a disease which is in the air. Hygienic precautions and cleanliness, are worth more than these pretended preventives.

*Inoculation.*—At one time, it was attempted at Havana to prevent yellow fever by inoculation of the poison of a snake, supposed to be the *crotalus horridus*. A German adventurer assumed the respectable name of Humboldt to sustain his theory. This man had observed that the Indian prisoners, lead from Mexico to Vera Cruz, exhibited, when they were bitten by a viper, symptoms analogous to those of yellow fever. He then made some experiments with the inoculation of this substance at Vera Cruz, and at New Orleans. He came afterwards to Havana, and obtained from General Concha, then Governor of the Island, permission to make some trials at the military hospital. He proceeded in this wise: He made, said he (no one saw it), the snake bite the liver of an animal, and kept it to putrefaction. He inoculated with this substance, and gave at the same time, internally, a syrup composed of *mikiana-guaco* and rhubarb, with the addition of iodide of potassium and gutta-gamba.

The symptoms appeared in the following order : at the moment of inoculation, the subject was taken with a transient vertigo, at other times, with a nervous trembling, which lasted a longer time. Seven hours after, the pulse was modified in a permanent manner, more frequent or slower, stronger or weaker. Eleven hours after, he had febrile heat. At the end of fourteen hours, he had headache, inappetence, thirst ; sixteen hours after, the face red, the conjunctiva injected. From the outset, the gums were swollen and the patient suffered from colic. Eighteen hours after, the gums were painful, and their borders became red, with pains in the salivary glands, and in the nerves of the face and teeth. Nineteen hours after, pain in the lower jaw, in the direction of the submaxillary nerve. At the twentieth hour, bad taste in the mouth, coryza, and oedema of the face ; at the expiration of twenty-two hours, a sensation of contraction of the throat, without visible change. At the twenty-third hour, jaundice ; at the twenty-fourth, gengival hemorrhage ; at the twenty-eighth, conjunctiva injected, chills ; at the twenty-ninth, tonsillary angina ; at the thirtieth, pains in the loins ; at the thirty-eighth, pain in the joints ; at the seventy-second, swelling of the lower lip. During convalescence, prurience of the skin, with cutaneous eruptions. These symptoms are far from being those of yellow fever. They belong in part to those produced by the mixture of guaco and iodide of potassium, and in part to those, which putrifying substances produce, when they are absorbed.

M. Humboldt would not yield to the desire of the Commission, to try solely the inoculation and the syrup of guaco. The conclusions of the report were absolutely unfavorable to the experimentalist. The epidemic of yellow fever continuing its course, the proportion of mortality was the same among the inoculated, as among other subjects, and if the statistical tables, presented by M. Humboldt, disagree with the conclusions of the Commission, it is because he had among the inoculated, not only a great number of acclimated persons, but of individuals who had already had the disease. These ideas of inoculation, inspiring a false security, might produce the saddest results. I think, however, that this interesting question might deserve to be studied anew.

I here terminate my effort. I have proposed to make yellow



fever known, as I have observed it at Havana for some twenty years. The reflections, which I have presented on the nature and the causes of this terrible disease, the details into which I have entered, in order that all that relates to its symptoms, its progress, and its treatment, may be clearly estimated, make this work a monograph, the utility and opportuneness of which, will, I hope, be appreciated by those medical men, who are called to practice in tropical regions.

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*The Elastic Bandage in the Treatment of Aneurisms.*—It seems likely that Esmarch's Landage will add very greatly to our means of treating aneurism. Dr. Weir has collected twenty-one cases of ilio-femoral, femoral, and poplital aneurisms, mostly the latter, treated in this way. Twelve of these were successful, while the others failed; owing chiefly to the fact that obstruction to the arterial current was not kept up after the removal of the elastic bandage. Upon this point Dr. Weir lays great stress, and states that in it is the gist of the treatment.

In connection with the study of this matter, the question of how long a limb can be kept desanguinated is of importance. In the lower animals the time is six or eight hours. In man the time is longer than has been heretofore supposed. Ischæmia has been enforced for four, five, and in one case fourteen hours without injury. During the compression it is important to remember that the arterial tension elsewhere is increased.

Antopsies have made it probable that coagulation begins in the tumor and extends up several inches into the artery. The arterial clot then becomes organized into fibrous tissue, and for this organization a healthy state of the wall is necessary. Aneurisms with large mouths are perhaps more easily cured by Esmarch's bandage.

As the result of a study of the cases collected, including his own, Dr. Weir recommends a plan of treatment like the following: the limb should be bandaged up to the tumor and above it, but not over it. The patient should stand erect before the upper bandage is put on. Tubing should be applied in the usual manner. The elastic compression may be kept on for two hours, followed by the application of a tourniquet for two hours. If pulsation is still apparent, the elastic and mechanical compression should be repeated until pulsation has ceased. After consolidation of the tumor is secured it is well to moderate current above the tumor for twelve or twenty-four hours by a bag containing seven or ten pounds of shot.—*Amer. Jour. Med. Sciences*, Jan., 1879.

## EDITORIAL.

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### NORTH CAROLINA MEDICAL JOURNAL.

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A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED  
IN WILMINGTON, N. C.

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M. J. DEROSSET, M. D., New York City,     }  
THOMAS F. WOOD, M. D., Wilmington, N. C. } Editors.

 *Original communications are solicited from all parts of the country, and especially from the medical profession of The Carolinas. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to our JOURNAL, by sending the address to this office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to DEROSSET & WOOD, P. O. Box 535, Wilmington, N. C.*

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### THE APPROACHING MAY MEETINGS.

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We ask the attention of the members of the North Carolina Medical Society, at the request of Dr. Charles Duffy, <sup>2d</sup>Jr., President, to their obligation as Chairmen and members of Committees and Sections.

The sections as instituted at the last meeting of the Society are as follows :

*Surgery and Anatomy.*—Dr. Charles J. O'Hagan, Greenville.

*Obstetrics Gynecology.*—Dr. H. Otis Hyatt, Kinston.

*Practice of Medicine.*—Dr. W. A. B. Norcom, Edenton.

*Materia Medica and Therapeutics.*—Dr. G. G. Smith, Mill Hill.

*Microscopy and Pathology.*—Dr. G. G. Thomas, Wilmington.

It will be remembered that the resolution creating the Sections offered by Dr. Shaffner, of Salem, designed that all papers coming under the above heads should be presented to the Chairman of that section, and through him papers are to be presented to the Society.

It is highly desirable, therefore, that papers intended to be presented should be sent forward to their proper chairman, that they may get early attention. The ultimate design of this method is to promote a systematic and orderly presentation of papers, and to induce every contributor to the literature of the Society to put his paper in a way to be properly shaped before being read to the Society. Sometimes papers are too long to be read during the session, and still are too important to be neglected. These papers should be passed upon by the Section to which they belong, and given to the publication committee.

As desirable as this plan is, it must not be understood to exclude papers prepared too late to be reviewed by the section, for literary laziness and procrastination is the prominent failing of members of our State Medical Society. (We are now speaking as editors).

With the additional work now devolving upon our State Society, every effort will have to be made to economize time. It is desirable that the Board of Medical Examiners meet a day in advance of the Society, in order that candidates passing the Board can at once enter into the duties of full membership, and enable the members of the Board also, to take active part in the proceedings. This we understand to be the plan agreed upon by the Board, and it may be officially announced in this JOURNAL.

All these matters should be thought over before the meeting is right upon us, if we intend to make the best use of the opportunities presented, and not embarrass the presiding officer by a jumble of ill-digested work, or bring disrepute upon the Society by presenting papers put together without due study.

Another matter of vital importance should be carefully considered by every member of the Society. It is the amendment proposed by Dr. T. D. Haigh, of Fayetteville. He proposes to amend the Constitution (Art. IV, Sec. 2,) so that the officers are elected by ballot. This is not a new feature. It has been tried before in the Society but was found to consume a great deal of time. This is the only objection we have heard against it, and this should not be considered insuperable, if the amendment corrects abuses of which we have heard complaints.

We would like to see the office of President filled for a longer term than one year. A good presiding officer is not so easy to get

that we ought to be willing to let him go out of office as soon as he has shown his capacity, and this remark applies with peculiar force to the present incumbent. To affect this change though, there must be a further amendment of the Constitution.

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### YELLOW FEVER POISON SURVIVES A WINTER.

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"The U. S. Steamer Plymouth, Captain Hanning, which left Boston March 15th, for a cruise to the West Indies, returned to Vineyard Sound on account of two cases of yellow fever occurring on board when about 80 miles south-east of Bermuda Islands.

"The ship had been in Boston during the winter, and as she had come from the West Indies last autumn with yellow fever on board she had been frozen out and fumigated. As she had not called into any port since leaving Boston, this development showed that the germs of yellow fever still existed in her, and she was headed north, being deemed, under the circumstances, unfit for cruising in the tropics. On the 31st of March, Peter Eagan, the boatswain's mate, was buried, having died from yellow fever on the previous day."—*Wilmington Sun's* associated press telegram.

The above dispatch has since been verified and the minute details will no doubt be investigated most thoroughly. Notwithstanding this case is not without a parallel, it comes in uncomfortable collision with the theories we cherish of the killing power of low temperature on the yellow fever poison.

In the most dismal times of a ravaging epidemic the heart turned with anxious longings for the arrival of frost! This was the line of demarcation between the pestilence and recovery from it! But in this case we are informed that the Plymouth spent the winter in Boston harbor with open hatches, the cold being intense enough to freeze the water in the boilers. Every means for thorough disinfection had been applied that could suggest itself to the minds of the well educated medical officers in the service of a government lavish in its supplies. With all this, a short cruise develops the fever in a form intense enough to cause the death of one of the two seized with the disease.

We will await the detailed accounts of the investigation which is to follow with peculiar interest. It is a starting point for the National Board of Health, and a difficult one.

We append the following from the Surgeon-General of the Navy, received through the Bulletin of the Public Health, from Surgeon General Hamilton, U. S. M. H. S.:

“The Surgeon-General of the U. S. Navy has furnished the following facts in regard to the recent outbreak of yellow fever on the U. S. Steamer ‘Plymouth:’ On November 7th last, four cases of yellow fever occurred on board the vessel while lying in the harbor of Santa Cruz; these were removed to hospital on shore and the ship sailed for Norfolk. Three mild cases occurred during the voyage and the ‘Plymouth’ was ordered to Portsmouth, N. H., thence to Boston. At the latter port everything was removed from the ship and all parts of the interior freely exposed to a temperature which frequently fell below zero, the exposure continuing for more than a month. During this time the water in the tanks, bilges, and in vessels placed in the store rooms was frozen, 100 pounds of sulphur was burned below decks, this fumigation continuing for two days, and the berth-decks, holds and store rooms were thoroughly whitewashed. On March 15th, the ship sailed from Boston southward; on the 19th, during a severe gale, the hatches had to be battened down, and the berth deck became very close and damp. On the 23d two men showed decided symptoms of yellow fever, and on the recommendation of the Surgeon, the vessel headed northward. The sick men were isolated, and measures adopted for improving the hygienic condition of the vessel and crew. The surgeon reported that he believed the infection to be confined to the hull of the ship, especially to the unsound wood about the berth deck, all the cases but one having occurred within a limited area, and that while the ‘Plymouth’ is in good sanitary condition for service in temperate climates, should she be sent to a tropical station, probably no precautionary measures whatever, would avail to prevent an outbreak of yellow fever.”

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*Charcoal for Burns.*—A retired foundryman claims that powdered pine charcoal thickly dusted over a burn is a never-failing and speedy remedy.

## THE NATIONAL BOARD OF HEALTH.

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This body as now composed includes fairly representative men. As far as we can learn it is as follows :

Dr. James L. Cabell, University of Virginia, President.

“ John S. Billings, U. S. A., Washington, Vice-President.

“ Henry J. Bowditch, Boston, Mass.

“ Henry A. Johnson, Chicago, Illinois.

Solicitor-General, Samuel Phillips, North Carolina.

Dr. S. M. Bemiss, New Orleans.

“ Th. Turner, Surgeon U. S. N., Washington, Secretary.

“ P. H. Bailhache, U. S. Marine Hospital.

“ Robert W. Mitchell, Memphis, Tenn.

A committee of experts has been sent to Havana to study the disease where it is endemic, and where it can be seen for many months in the year.

“The system [adopted by the new National Health bill] contemplates a national sanitary supervision of all vessels engaged in the transportation of goods or persons from any foreign port where any contagious or infectious disease exists, to any port of the United States. All such vessels shall be required to obtain from the consul, vice-consul, or other consular officer of the United States at the port of departure, a certificate in duplicate, setting forth that said vessel has complied with all the necessary regulations and possesses a clean bill of health. This provision applies with particular and special force to vessels from Havana, a clause in the bill defining in detail the duties of the medical officer in charge of the port. The said inspector must issue a certificate setting forth ‘that he has personally inspected said vessel, her cargo, crew, and passengers; that the rules and regulations prescribed by the National Board of Health in respect thereto have been fully complied with, and that in his opinion the said vessel may be allowed to enter any port of the United States and land its cargo and passengers without danger to the health thereof on account of any contagious or infectious disease.’ Any vessels from such port entering any port of the United States without such certificate shall in each instance forfeit the sum of five hundred dollars. The execution of these provisions is entrusted to the National Board of Health. The

latter is also charged with the duty of obtaining information of the sanitary condition of foreign ports and places from which contagious diseases are or may be imported into the United States, and also similar information from home ports. It is also provided that the National Board of Health 'shall correspond with similar local officers, boards and authorities acting under laws of the States in sanitary matters, to prevent the introduction and spread of contagious and infectious diseases from foreign countries into the United States and from one State into any other State by means of commercial intercourse, or upon and along the lines of inter-State trade and travel.' To such an end it shall be lawful in times of emergency for said board of health to confer upon any such local officer or board within or near the locality where his provisions of this act, and any rules or regulations made in pursuance thereof."—*Medical Record*.

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### SYMES ON THYMOL AND THYMOL-CAMPHOR.

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Dr. Symes, in the *Pharmaceutical Journal* of January 10, publishes the results of his researches on the combination of thymol, chloral-hydrate, and camphor, acting as an antiseptic. The two former drugs are rubbed together in a mortar, and an equal quantity of camphor added, which liquefies the whole, and produces a powerful antiseptic. Its virtues were immediately tested on some urine containing pus, and which was already beginning to decompose. Two drops of the compound being added to it, the putrefaction was arrested. If thymol and camphor alone are rubbed together, they also become liquid, and this a convenient form from which to prepare the ointment. Thymol-camphor can be mixed in almost any proportion with vaseline, *ung. petrolei*, or ozokerine, and the thymol will not separate, as in crystals, when thymol alone is used. A solution of thymol in water (1 in 1000) is sufficiently strong for the spray in surgical operations. If used for the throat, milk and glacial acetic acid will be found to be good solvents for it.—*London Medical Record*.

## REVIEWS AND BOOK NOTICES.

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MODERN SURGICAL THERAPEUTICS: A Compendium of Current Formulæ, Approved Dressings, and Specific Methods for the Treatment of Surgical Diseases and Injuries. By George H. Napheys, A. M., M. D., etc. Sixth Edition. Revised to the most recent date. Philadelphia: D. G. Brinton, 115 South Seventh Street. 1879. Pp. 605. Price \$4.00, in cloth.

This is a companion volume to Napheys' Medical Therapeutics which we noticed in our January issue.

The design of this work is to give a careful digest of surgical therapeutics up to the latest date, and the author has succeeded in carrying it out. As a work of ready reference it may be compared favorably with any of a similar character. Discrimination in selections, however, does not seem to be the aim of the author, but rather to bring all matters under their heads, leaving the reader to select those best suited to his needs.

In divesting surgery of its operative procedures, it leaves a comparatively indifferent number of resources, but the therapeutical branch is by no means at a stand still.

We are pleased to see that under the head of anæsthetics, chloroform has been allowed its proper place at the head of the list.

Chloroform "is the most potent of all anæsthetics," he says, "and its use is still advocated by many eminent surgeons. Only the alleged dangers attending it, prevent its exclusive employment. Many of these arise from its ignorant or heedless administration." The directions for its use are given, as also the means of combatting dangers arising from it. Dr. Napheys might have added with a great deal of truth, that chloroform should not be administered by any surgeon who is not habitually on his guard as to the dangers of the anæsthetic state.

The dressing of wounds after the new processes of antiseptic practice receives a great deal of attention. To one familiar with the dressings during our civil war, on examination of the present multitudinous plans to exclude "germs" would bring back the days of our grand-fathers in surgery with their balms and balsams and salves; and some of the dressing is not more rational. According to Esmarch (p. 151 and 152) the dressing of gun-shot wounds



should be purely antiseptic. "Do not examine the wound at all, rather than examine it with unclean fingers—and everything is unclean, in the strict sense that is not antiseptic.

"\* \* \* \* \* To avoid pernicious putrefactive influences the wounds must not be touched by the hands, but closed rapidly by antiseptic plugs, in order to preserve them from the contact of putrefactive agents until they can undergo the Lister treatment in the hospitals if necessary. He proposes that every soldier should carry in the lining of his uniform two balls of *salicylated jute* wrapped in gauze."

We make this particular quotation to show to what old-maidish precision the antiseptic idea is leading good surgeons. This ever-present inextinguishable "germ" is the evil spirit hovering over every wound. Nets of gauze are set to protect it; strong odors from the witches cauldron are summoned to stifle and destroy the malicious fiend.

We are thankful though that the civil surgeon still sees "union by adhesion," and "first intention," and "granulation," in regions so far remote from Listerism that there is little hope it will enter there, and if it does it will hardly captivate the even-minded country surgeon. When the days of probationary Listerism have ended we will not be surprised if the verdict is against it.

But we have digressed from our book. It is the XVIth chapter on "Diseases of the Skin" that will be often consulted by the busy doctor. Having made his diagnosis, here is a goodly array of remedial agents, from the most eminent teachers to help him out of difficulties. We miss chrysophanic acid in the composition of his formulæ for the treatment of psoriasis. It certainly has made as much headway in the favor of the general practitioner as any of the more recent agents.

But why say anything about a book which has made its way through the world, and has now come to its sixth edition? The hundreds of medical men who will read it, will traverse a field of surgical treatment far beyond the facilities of those possessed of the best private libraries. As long as the author keeps up with the current of surgical treatment, his book will be sought after. We congratulate the author, and Dr. Brinton, on the success of this book, and advise our friends to buy it.

A CLINICAL TREATISE ON DISEASES OF THE LIVER. By Fried-Theod. Frerichs. Prof. of Clin. Med. Uni. of Berlin, &c., &c. In three volumes. Translated by Charles Murchison, M. D., F. R. C. P. Physician to the London Fever Hospital. New York: Wm. Wood & Co. 27 Great Jones Street. 1879. 8vo. Pp. 224.

This is the third volume of Wood's Library of Standard Medical Authors.

For many years this work of Frerich's has been a classic, although only known popularly to the American profession by the large number of quotations made from it by writers on diseases of the liver. Although the word "Clinical" appears on the title page, it is nevertheless a systematic treatise which traverses the entire field of clinical pathology, and embraces also lucid historical accounts of the phases of change which medical men have passed through on their way to the knowledge of the present day.

This book, more than any we have been called upon to review, shows how much German authors rely upon the authority of their own people. References everywhere abound, but for the most part to German works. We do not mention this as a fault, but to make the contrast with American authors who seem to glory in going far away from home for authority among the unspeakable names of the Russian and German gentry.

Prof. Frerich's work for this reason will be more valuable to American students who wish to know the state of pathology in Germany in regard to "the great gland."

As, of course, no American physician can now forego the pleasure and duty of making Frerich's on the Liver one of his working tools, we leave them to judge if we are mistaken in saying that it is a master-piece.

Dr. Charles Murchison is the translator, and his preface serves to elucidate many points, and to bring the work up to the present advanced state of pathological and physiological knowledge. It is not necessary to say anything commendatory of the author of *Functional Diseases of the Liver*, as every Southern physician will have found a good friend and counsellor in this volume already.

To subscribers this work is sold at \$1.00, a very low price!

THE DISEASES OF LIVE STOCK and their most efficient remedies : Including Horses, Cattle, Sheep and Swine. By Lloyd V. Teller, M. D. Philadelphia : D. G. Brinton, 115 South Seventh St. 1879. Pp. 469. Price \$2.50.

Diseases of the domestic animals deserve more study from the medical profession than they receive. Medical men even now submit their horses to the treatment of the neighborhood blacksmith and farrier, whose ignorance and brutality is all but universal, rather than inform themselves of the phenomena of brute diseases ; in fact, some medical men hold it as beneath their dignified calling to give their attention to such affairs. Fortunately now a better day is dawning, and books like this will do a great deal towards enticing physicians into this neglected field. There is no practice that promises such profitable returns as the educated and skillful management of diseases of domestic animals.

We advise our friends in the country to put this volume side by side on their book-shelves with Youatt, and soon the latter would be but a shelf-keeper alongside their new acquaintance.

The point of view from which the study of the diseases of domestic animals is growing in importance, is the relation of their diseases to ours.

To be able to detect measles beef and mutton is an accomplishment that every physician should acquire, now that we know that tape-worm has its origin there. And we should also be stimulated to earnest enquiry when we remember what great results JENNER brought out of the study of cow-pox.

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BIENNIAL REPORT OF THE NORTH CAROLINA INSTITUTION FOR THE DEAF AND DUMB AND THE BLIND. From January 1st, 1877 to January 1879. 32d and 33d Sessions. Raleigh : Published by order of the Board of Trustees.

The last Legislature was famous for fault-finding, but had nothing but praise for the Institution presided over by Mr. Gudger. His report shows good work done, and common sense ideas of the theories of the methods of teaching of those unfortunates under his care.

Mr. Gudger reviews the arguments of the advocates of the Manual method, and the Articulation method, of instructing deaf mutes as follows :

“There is a ground, however, upon which the advocates of each system can meet and agree. In most of the larger institutions articulation has been introduced and is a success, when the class to be instructed consists of those who, having heard in childhood and learnt to speak, have become deaf (and so are in danger of losing what speech they have) or of those who are partly deaf and consequently not able to catch the delicate shades of sound in different words similar to each other. As these persons have some language to build upon, and an idea of sound, it is comparatively easy, by means of the skillful methods in use, to improve and advance their knowledge in this particular, especially as the teacher may use the *known* in getting at the *unknown*; but to attempt to teach articulation to an ordinary congenital deaf-mute, is to spend valuable time in that which gives promise of little fruit. In other words, as our matter-of-fact American people would express it, ‘*It does not pay.*’”

The entire report shows that the management is in the hands of a courageous and enthusiastic worker,—one not too much engrossed with the beautiful theories of his profession—who shows practical results instead of learned dissertations.

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LECTURES ON PRACTICAL SURGERY. By H. H. Toland, M. D. Professor of the Principles and Practice of Surgery, &c., &c., in the University of California. Second Edition. Illustrated. Philadelphia: Lindsay & Blakiston. 1879.

This is a handsome volume of 520 pages, written by a teacher of surgery of great celebrity on the Pacific slope. It consists of lectures as delivered in the Medical College of the University of California, reported by a stenographer. The first edition of this book, although it was treated rather severely by the critics has found ready sale, the present being the second edition.

It is not difficult to see that Dr. Toland is an original teacher of merit, bound down by no school, nor easily captivated by innovations. He is confident of his powers and does not speak with uncertain meaning.

Under the head of fractures of the thigh, the apparatus in favor with the author is the double inclined plane with some modifications, and with which he has had admirable results.

"When you engage in practice," he says p. 284, "you will soon be convinced that the double inclined plane and short splints are generally better than a more complicated apparatus."

Again—"If physicians relied more on their common sense than on the rules of authorities in the treatment of fractures, there would not be so many cases of deformity resulting from such injuries as are daily presented. I would as soon think of committing suicide as of placing an oblique fracture of the tibia in an ordinary fracture-box, filled with either sand, sawdust, or any of the other substances used for that purpose," p. 279.

A case of aneurism of the left iliac artery is given and illustrated, (p. 515). "In aneurism of the external iliac artery" the author says "I never open the sheath, and consequently apply a single ligature; the sheath of the vessel not being disturbed, there is scarcely a possibility of the occurrence of secondary hemorrhages. I have ligated the external iliac nine times, and my success is the best evidence of the correctness of the theory upon which it is based. One patient died from gangrene of the extremity, and the other from internal hemorrhage which proceeded from the small vessels that were lacerated when the peritoneum was detached from the iliac fossa," p. 516.

The volume is well illustrated by fresh designs,—all of them original—a matter of sincere congratulation to the author and publishers.

A book possessed of so much originality and individuality as this, will be sure to find a large number of readers among the former students of the author, and will also make its way into favor with the student of American surgery.

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*Syphilis by Vaccination with Human Virus.*—The virus was taken from the arm of a child aged seven months, apparently in perfect health. Twenty-five girls were vaccinated from this infant. At the end of six weeks, twelve of the girls were taken with symptoms of syphilis, ulcerations at point of inoculation followed by exanthema, ulcerations in mouth and pharynx, condylomata of anus, syphilitic ozœna, etc.; three others of the group suffered from suspicious ulceration near the vaccine sore, which failed to be followed by constitutional symptoms. Later it was discovered that the mother of the child was suffering from syphilis.—*Hosp. Med. Gazette.*—*Louisville Med. News.*

## NEW JOURNALS.

INDEX MEDICUS.—We hardly know which to admire most in this new journal—its typographical excellence, or its editorial management. It is no surprise to the medical public that it begins its existence as an accomplished success, as Dr. Billings had long ago shown his capacity in his official position as librarian, and has shown his taste also in the typographical selections in the specimen fasciculus of the catalogue of the National Medical Library.

The two numbers now before us demonstrate as it could be done in no other way, the necessity for some guide to the medical literature of the world. The student will be helped in pursuing any special research, and the general reader will be able to know what is going on in the medical world, and be saved very much irksome reading by following his inclinations. The careless and uninformed “discoverer” of new things, may be saved the trouble of re-discovering, by looking out into the field upon what others are doing.

Twice we have written notices of this periodical, and each time it was overlooked. Our notice though tardy is none the less earnest.

The subscription price is \$3.00 a year, and intending subscribers should commence at once with the first number. Address, F. Leyboldt, 37 Park Row, N. Y.

THE COURIER OF MEDICINE AND COLLATERAL SCIENCES is the title of a new monthly journal of exceptional excellence, commencing its career with the January number, in St. Louis. This city had already in the field a brilliant array of medical journals, and while we cannot think any less of our old friends we welcome the new one.

The printer's art has cleverly served up the literary matter in a style which will commend itself to all readers, and especially those who are beginning to hold their books at arm's length. The effigy of John Hunter on the outside cover is a faithful copy of the celebrated Sharpe engraving, and is in good taste.

What a clever faculty there must be in St. Louis to sustain so many good journals by purse and pen ! We wish for the journal a most hearty appreciation.

NORTH CAROLINA FARMER.—An examination of the April number of this periodical was a pleasant surprise. It abounds in prac-

tical matters suited to the necessity of our farmers, and should be read and supported by the pen and pockets of the entire agricultural community.

We make one suggestion to the editors, and that is, that if they are to have a column for diseases and remedies (a questionable matter for all non-medical publications), that it should be in the hands of a competent medical man. We congratulate the publishers that they have no nostrum advertisements. Large quarto of 18 pp. at \$1.00 a year. Jas. H. Enniss, Editor and Publisher, Raleigh, N. C.

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## GROSS ON THE TREATMENT OF CYSTIC GOITRE.

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In a clinical lecture delivered by M. Gross, of Nancy, reported in the *Revue Médicale de l'Est*, of November 15, he describes the treatment of cystic goitre, known as Michel's "mixed method," as extremely useful, and furnishes a case illustrating its advantages. Giving a rather extended review of the various modes hitherto proposed for removal of these growths, he points out their drawbacks, and the superiority of Michel's method over them. Briefly the latter consists in making a vertical incision in the skin over the most prominent cyst, and then dissecting carefully down through the various structures, until the wall of the cavity is reached. A very fine trocar is then pushed into the cavity with a canula, and through the latter the fluid is withdrawn. After this a plaque of pâte de Canquoin, about three centimètres broad, is applied to the cyst, the sides of the wound being protected by a circular piece of diachylon. This is left on a day or two until an eschar is formed, which soon after comes away, leaving a free opening through, which the cyst can discharge, until it shrinks up, after suppurating for a time.

It is claimed for this method that it is less likely to give rise to dangerous hæmorrhage than several others, while, the caustic only being applied to the surface of the cyst, severe inflammation of the tissues around is avoided. Other cysts, if present, are similarly treated through the aperture of the first.—ARTHUR E. BARKER, in *London Medical Record*.

## CURRENT LITERATURE.

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### REMEDIAL AND FATAL EFFECTS OF CHLORATE OF POTASSA.

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In a paper read before the Medical Society of the State of New York, (*Medical Record*, March 5th), Dr. Jacobi reviews in a very careful manner the remedial effects of chlorate of potash, and calls attention also to what he considers the dangers of large dosage so commonly employed by physicians and patients.

Sir James Y. Simpson, introduced chlorate of potash on the theoretical ground of its employment in chemistry to develop oxygen, to supply oxygen to the blood on the part of the fœtus in cases of placentitis.

Many years ago, Isambert and Honie, found chlorate of potash eliminated without any change, and in large quantities, even as much as 95 or 99 per cent. of the amount administered, in the various secretions of the body; that is in the urine, the saliva, the tears, the perspiration, the bile, and now and then even in the milk; no oxygen was developed at all. The theory of Simpson was long ago given up, because it was found out that the same redness was produced in the blood by other alkalies.

Its principle value consists in its effect upon catarrhal and follicular stomatitis; further, in mercurial stomatitis, the former being a frequent and the latter a rare disease in infancy and childhood.

"In regard to [the employment of chlorate of potash] diphtheria, I can give [my position] in a few words. It is this: that chlorate of potassa is a valuable remedy in diphtheria, but that it is not *the* remedy for diphtheria. There are very few cases of diphtheria which do not exhibit larger surfaces of either pharyngitis or stomatitis than of diphtheritic exudation.

There are also a number of cases of stomatitis and pharyngitis, during every epidemic of diphtheria, which must be referred to the epidemic, perhaps as introductory stages, but which still do not show the characteristic symptoms of the disease. \* \* \* \*

The dose of chlorate of potassa for a child two or three years old should not be larger than half a drachm in twenty-four hours. A baby of one year or less should not take more than one scruple a



day. The dose for an adult should not be more than a drachm and one-half, or at most two drachms, in the course of twenty-four hours.

The general effect might be obtained by the use of occasional larger doses; but it is best not to strain the eliminating powers of the system. The local effect cannot be obtained with occasional doses, but only by doses so frequently repeated that the remedy is in almost constant contact with the diseased surface. Thus the dose, to produce the local effect should be very small and frequently administered. It is better that the daily quantity of twenty grains should be given in fifty or sixty doses than in eight or ten; that is, the solution should be weak, and a drachm or a half-drachm of such solution can be given every hour or every half hour, or every fifteen or twenty minutes, care being taken that no water is given soon after the remedy has been administered for obvious reasons. He referred to these facts with so much emphasis because of late an attempt has been made to introduce chlorate of potassa as the main remedy in bad cases of diphtheria—and, what is worst, in large doses.

As early as 1860, Dr. Jacobi advised strongly against the use of large doses of chlorate of potassa. \* \* \* \* The treatment is dangerous and because of the largeness of the dose of the chlorate given.

After reviewing the opinions of several writers who have extolled chlorate of potassa in large doses, and having pointed out the real solution of so many having succumbed to nephritis or similar symptoms, he concludes:

“The practical point I wish to make is this, that chlorate of potassa is by no means an indifferent remedy; that it can prove and has proved dangerous and fatal in a number of instances, producing one of the most dangerous diseases—acute nephritis. We are not very careful in regard to doses of alkalis in general, but in regard to the chlorate we ought to be very particular. The more so as the drug, from its well-known either authentic or alleged effects, has arisen or descended into the ranks of popular medicines. Chlorate of potassa or soda is used perhaps more than any other drug I am aware of. Its doses in domestic administration are not weighed but estimated; it is not bought by the drachm or ounce; but the ten or

twenty cents worth. It is given indiscriminately to young and old; for days or even weeks, for the public are more given to *taking hold* of a remedy than to *heed warnings*, and the profession are no better in many respects. Besides, it has appeared to me, acute nephritis is a much more frequent occurrence now than it was twenty years ago. Chronic nephritis is certainly met with much oftener than formerly, and I know that many a death certificate ought to bear the inscription of nephritis instead of meningitis, convulsions or acute pulmonary œdema. Why is that? Partly, assuredly, because for twenty years past diphtheria has given rise to numerous cases of nephritis; partly however, I am afraid, because of the recklessness with which chlorate of potassa has become a popular remedy. Having often met medical men unaware of the possible dangers connected with the indiscriminate use of chlorate of potassa or soda; I thought this Society would excuse my bringing up this subject. It may appear trifling, but you who deal with individual lives, which often are lost or recovered by trifles, will understand that I was anxious to impress the dangers of an important and popular drug on my colleagues, and through them on the public."

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### DEMANGE ON AZOTURIA.

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The importance of the study of urology has of late been more fully realized by Medical practitioners, and M. Demange in his thesis (*Thèse de Paris*, 1878) has undertaken to give a full account of the progress of this branch of medical science, being also fortunate enough to be able to enrich it by several new or very little known observations on azoturia. The latter seem the most interesting part of his thesis; we give them here briefly. The normal quantity of urea which must be contained in the urine in the space of twenty-four hours is from nineteen to fourteen grammes. If more or less is excreted, this is caused either by some local or general affection. Some years ago, Bouchard, in studying the causes of loss of flesh in patients suffering from diabetes insipidus, discovered that a large number among them lost an enormous quantity of

urea. Having thoroughly examined their symptoms he thought himself fully justified in describing azoturia as a special disease, having peculiar clinical symptoms. The affection begins with a sensation of ravenous hunger, polydipsia or profuse sweating. The thirst is excessive, and the urine passed is generally in proportion with the quantity of drink swallowed by the patient. Its density is from 1000 to 1002. In order to be able to calculate justly the amount of urea lost in twenty-four hours, all the urine passed in twenty-four hours, all the urine passed in this time must be kept and mixed. In some cases it has reached the amount of eighty-seven grammes, a most enormous quantity, which proves that nutrition is very much impaired. Senator Kien and M. Bouchard have shown that what is called extractive matter is eliminated, corresponding to urea in such cases, and that chlorates and phosphates are ejected in a similar proportion. We must, therefore, not be astonished if the patients present general symptoms which are analogous to those of diabetic patients, with the exception of the visual troubles of the latter. Both the crystalline lens and the retina remain intact, and the sight is only influenced by the anæmic state of the brain, which is caused by the dyscrasia, and which in certain cases produces a torpor of the intellect verging on imbecility. As in cases of diabetes mellitus and albuminuria, sometimes the quantity of urea decreases, and even falls below the normal amount.

In order to be able to make an exact diagnosis, it is necessary to examine carefully, both the urea and the other excreta, for several days consecutively. As a rule, persons attacked by simple polyuria, or who are suffering from interstitial nephritis, beginning with polyuria, do not present the symptoms which we have enumerated.

Disturbances of the nervous symptom and alcoholism claim the first place in the etiology of this affection, and indicate the treatment which has to be adopted. It consists in administering drugs to calm the nervous erethism (opium and valerian), and to put a stop to the excessive and progressive impoverishment of the tissues (arsenic, a suitable diet, etc.) Valerian has proved specially successful in different cases, even effecting a complete cure. Besides these cases of azoturia, combined with polydipsia, Bouchard thought

that there was another form of the same disease, in which there was no abnormal excretion of urine, although the latter contained an excessive amount of urea. However, as his observation in that respect are far from being satisfactory, and as these are evidently cases of cachexia, the etiology of which is very obscure, it will be wiser to leave them alone for the present. The author then goes on to consider the much-debated question on the varying amount of urea in glycosuria. In some patients suffering from the latter affection, as much urea is eliminated as the general amount in azoturic patients. It is true, however, that there may be something more than a simple coincidence between these two affections, and several authors have tried to link them together. Lécorché, who admits the hepatic theory of the formation of urea, thinks that this is only the double result of hyper-activity of the functions of the liver. Bouchard, on the contrary, considers it as a true complication of the existing affection, where troubles of nutrition are added to those resulting from insufficient respiratory combustion. According to him, the difference between melitæmia and azotæmia consists in the first resulting from the accumulation of a product of secretion, while the second results from the accumulation of a product of excretion. Azoturia is, therefore, as we said, only a complication, an accessory element which must, however, be considered as being a most important prognostic symptom. According to the same author the abundance of sugar in diabetes is owing more to a want of combustion than an exaggerated production of this substance in the organisms. If this be the case, how can we explain the coincidence of an abnormally low temperature with the production of an exaggerated quantity of urea, such as has been observed in every case without exception? This is the weak point of M. Bouchard's theory, and it would perhaps be better to refrain from giving a decided opinion on the subject until it has been more thoroughly studied. In short, whenever there is an excessive excretion of urea we may consider it as a symptom of incipient cachexia, followed by loss of flesh. The most important question, however, for the medical practitioner is the following: are these two affections to be considered as belonging to two different groups, but having been developed incidentally at the same time in the same patient; or are they connected through a link which is still unknown to us, thereby forming one affection or disease? If these questions

could be solved, there might be some hope of discovering some rational mode of treatment, so as to prevent albuminuria from setting in, in which case all is lost. In another chapter we find the calculation of the amount of urea excreted in several chronic diseases, such as obesity, syphilis and athrepsy. Here it is easy to make a mistake, and still more so to err in trying to interpret the results obtained, because here the nourishment taken by the patient plays an important part, which is easily overlooked, e. g., in fleshy persons. Azoturia may be produced either by excess of food, or by abstaining from farinaceous food. The only way of ascertaining if the combustive functions are really exaggerated in a patient would be to compare the amount of chlorates contained in the secretions with the weight of the patient. Since Brouardel published his paper, on what he termed the uropoietic functions of the liver, several experiments have been made to ascertain the amount of urea excreted in diseases of this organ. The results have been very contradictory, but it is certain that large quantities of urea have been found in the urine of patients whose liver was completely degenerated.—*London Medical Record*.

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## EXPERIMENTS CONCERNING ERYSIPELAS.

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Observations “were undertaken” by H. Fillman, of Leipzig, “in order, if possible to obtain further and more accurate information upon some contested points regarding erysipelas.” The experimenter has addressed himself here, especially to the answering of the four following questions :

I. Is it possible to convey erysipelas by inoculation from a diseased to a healthy individual ? In other words, do those fluids obtained from the tissues of an erysipelatous part and employed for inoculation (e. g., lymph, blood, the contents of bullæ, pus, etc.) exercise a specific, i. e., contagious action on healthy individuals when inoculated, or do they not ?

II. What is the action of carbolic acid upon those erysipelatous animal fluids which produced the same disease on being inoculated

into healthy individuals, and therefore in all probability contained the erysipelas poison ?

III. In what way is it possible (apart from direct conveyance) to produce erysipelas in healthy animals by the application of different morbid matters ?

IV. What do we learn from the results of anatomical and experimental investigation regarding the presence and significance of bacteria ? What relation have they to erysipelas ?

It would be difficult for four more interesting or important questions for the practical and scientific surgeon than these. But in proportion to their importance are the difficulties which surround them. These, however, are grappled with by the author courageously, patiently, and honestly, and the result is at all events a series of experiments of extreme interest, whatever be the conclusion, we may feel disposed to draw from them. Indeed, the writer himself seems to have set out upon his investigation purely with the desire to learn whatever is to be learned on the points stated, by careful and patient anatomical research, and without being wedded to any particular theory in regard to them, or desiring to force any conclusion.

Recognizing the great importance of the subject, and the efforts that have been made by others in the same direction to throw light upon it, notably by William, Ponfick, Orth, Bellien, Zuelzer, and Lukomsky, he has recognized many points in which these observers have failed, and has endeavored, in following out somewhat similar lines of research, to avoid their, and other, errors.

To the danger of one great source of possible error the author seems specially alive, the introduction of other matters into the system of the animal operated on than the mere morbid fluid inoculated, and this he has endeavored to guard against by the most scrupulous cleanliness in obtaining, preparing and introducing such fluids into the bodies of animals.

In touching upon the first question his first case is to define as clearly as possible what are the clinical features which characterize erysipelas in the human subject. He then details in all his experiments, and, from the kind of success of five out of twenty-five inoculations he believes there can be no doubt "that erysipelas is inoculable in rare cases : that fluids from an erysipelatous part, dis-

play a specific contagious action." In three cases he inoculated animals from the human subject successfully with erysipelas, and in two cases animals were infected from other animals. He believes, too, that one human subject might be inoculated from another.

In regard to the second question propounded, four experiments were made with erysipelatosus inoculation material, which had been potent in other cases, but here a portion of 2—4 per cent. solution of carbolic acid was added. In none of these cases was there any appearance of either local or general symptoms of any disease.

In answer to question III, all the author's results were negative. In no case was erysipelas produced by even the most putrid inoculations, when they were not taken from an erysipelatosus part. In several cases, however, the animals died of distinct septicæmia.

The observations on the last point which are related in detail, point to the conclusion that bacteria are present in some cases of erysipelas and absent in others, so that we may infer that the advance of the disease does not depend upon their presence.—*London Medical Record*.

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## CHOLERA INFANTUM.

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A contribution to the etiology, pathology, and therapeutics of cholera infantum,\* by Dr. T. Clarke, Miller, opens fairly and clearly a theme which will be uppermost in the thoughts of physicians in the approaching hot weather.

The writer begins by pointing out how differently the name *Cholera Infantum* has been applied, including every phase of choleraic diseases. But, "Classification of these diseases to be practical, must of necessity be rather coarse in order to adopt itself to the grain of the great mass—the rank and file—who in the main observe well, though not so systematically as we could wish. The great office-workers do not contribute largely to our mortality statistics, but we will derive great comfort as we proceed, in finding

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\*The American Journal of Obstetrics and Diseases of Women and Children, April 1879, p. 236-51.

that the figures of these common men are stupendously significant—that the bullet and bayonet are in the aggregate little less important than the epaulette and the gold lace.” He supposed that in the large majority of cases reported as cholera infantum that the choleraic feature was present at some time during the illness, though very likely not at or very near the time of death. For these reasons he considers that the statistics presented are not materially impaired.

“The onset of cholera infantum is characterized by copious watery evacuations from the bowels, often attended by nausea and free vomiting. Attending upon this or even sometimes preceding it, or rapidly succeeding upon it, is the extreme muscular prostration and great depression of the respiratory functions; there is generally more or less griping pain and restlessness, and a rapid appearance of all the symptoms of collapse, coldness of the surface and tongue, feeble rapid pulse, and partial or total loss of voice. Cholera infantum proper, lasts but a few hours—hardly a few days—when it ends in recovery, death, or inflammatory disease of some portion of the intestinal tract; in the latter case the choleraic disease is rapidly rekindled by conditions similar to those which brought about the first attack.

“The condition under which cholera infantum appears, and the *only* condition essential to its development, is continued high temperature day and night—a mean thermometer above 75°, with small daily range. This high and slightly varying temperature continued from six to ten days, will invariably, in our climate, bring cholera infantum (together with the bowel trouble symptomatically more or less distinct, but pathologically akin to cholera infantum), and the longer this condition of things continues the more numerous and the more intractable the cases become. This is as true in the country as in the city, though we are led to think, as we read the books, that this is a disease of the city especially. Deaths are registered, to be sure, and the books are made in the cities, but if the conditions above mentioned exist in the country, the disease appears there—of course, not a great many cases, for the susceptible bodies furnished by a single block in the city would outnumber those of two or three square miles in the country—yet I am glad to admit that the *conditions* for obvious reasons are not so likely to be present



in the country ; the contrast, in point of green grass, shade, cool water, and moving air, is no less marked than is the percentage of mortality, and it is *no more* marked.

“Few, if any, recoveries take place until the temperature falls ; this fall is usually attended by rain ; but this not seem to be essential, the fall of temperature alone being sufficient to bring about a better state of things. When the temperature falls, cases improve and new cases cease to appear. Sewer emanations do not seem to have anything directly to do with the production of disease, except so far as they tend to impair the general health, and thus diminish the power of the system to resist any disease producing influence, and sewer poisons are no less abundant and deadly at other times than they are when cholera infantum cases are most numerous, and this is the time of year above others when the sewers are abundantly ‘flushed.’”

Filth he does not consider is any more abundant in the summer, and the disease declines with the increase of the very rains that favor increased decomposition. He does not attach much importance to unripe fruits as a causative element. “For whoever saw a youngster who would not exchange all his earthly possessions for a green apple, and whoever saw a child in good health injured by an unripe apple or by any quantity not altogether unreasonable ?” And then the sufferers from cholera infantum are—all under two years, and hence have not arrived at the green-fruit eating stage of their existence.

Nine tables are constructed, showing the weekly mortality from cholera infantum in Philadelphia, New York, Boston, Baltimore, Cincinnati and Chicago, and also as far as possible the record of thermometric range. An analysis of the table bears out the author’s views as regards the causative influence of continued high temperature.

He thinks there are some points of striking resemblance between this disease and sunstroke, so much as to suggest a pathological relationship. 1st. The same conditions seem to be sufficient for and essential to the development of each. 2. They come and go together. 3. The development is gradual and the recovery is slow in each, showing a profound impression made on the living-power of the patient. 4. The explosive character of the attack under the

cumulative effects of continued high temperature with the sudden severe or fatal prostration consequent.

“Wash your children well with *cold water* twice a day, and *oftener* in the hot season,” is the direction of the New York Board of Health; and Dr. Miller thinks if this one prescription were carried out, cholera infantum cases could be well nigh eliminated from the mortality reports. He thinks it worth while to inculcate among our patrons that however important it may be to take special care in feeling, this will not be sufficient alone, to carry the infant safely through the high temperature of July and August; and we would try to have the people study to keep the little ones *cool*, and the means recommended is cool-bathing or cool-spönging. Medicines are not of much use if the surroundings are cool.

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## SOCIETY MATTERS.

The subject selected by the Medical Society at the last meeting in Goldsborough, was SPONDYLITIS. They were fortunate in selecting Dr. M. Whitehead as the essayist. It seems to us it would be more agreeable to the essayist, to allow him to select his own theme, and provided he announced it in advance of the meeting, it would answer the same purpose.

The annual oration will be delivered by Dr. W. W. Lane, of Wilmington, upon a subject not announced.

The Society expects from these gentlemen rare entertainment and instruction.

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In our quotation from the *Nation's* Berlin letter on “The Discovery of the Soul,” the printers made the mistake of not ending the paragraph with quotation marks, and our northern neighbors who copied it from the *Journal* entire without acknowledgement, have incorporated Sambo's philosophy in a way that we considered original with ourselves. It would be news to the *Nation's* correspondent that he is versed in the mysteries of the philosophy involved in the “folk lore” of our Southern negroes.

## TO OUR READERS.

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### THE VALUE OF PURE WINE IN SICKNESS.

The chief difficulty with reliable wines has been their scarcity and exorbitant price, but this has been removed by the introduction of a Pure Native Wine, produced from the Oporto grape by Mr. Alfred Speer, of New Jersey. We understand he has submitted his Wine to the test of many of our celebrated physicians, and all concur in its purity, medicinal properties, and superiority to the best imported Port Wine. Most of them prescribe it in cases of debility, affections of the kidneys, and chronic complaints, requiring a tonic, sudorific or diuretic treatment.—*Examiner*. Sales-room 34 Warren street, N. Y.

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### MALTINE.

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This above preparation is attracting the attention of the medical profession of Great Britain and the reputation it has acquired as one of our best nutritive agents is recognized and established, as the following extracts will show :

From the *British Medical Journal*, October 10th, 1878 :—" At the late meeting of the British Medical Association, at Bath, in August last, among the visits of Pharmaceutical and Medical preparations, much interest was shown in one called *Maltine*, which may be described as a highly concentrated extract of *malted barley, wheat and oats*.

"Extracts of Malt (i. e., Malted barley) are pretty widely known, but this is the first example of a combination of the nutritious principles of these three cereals that we have seen, and the greater value of this combination is apparent, as wheat and oats are especially rich in muscular and fat-producing elements. This preparation is entirely free from the products of fermentation, such as alcohol and carbonic acid, and is very agreeable to the taste.

"Clinical experience enables us to recommend it as a nutritive and digestive agent, in virtue of its albuminoid contents, and its richness in phosphates and diastase, likely to prove an important remedy in pulmonary affections, debility, many forms of indigestion, imperfect nutrition, and deficient lactation. It will in many cases take the place of Cod Liver Oil and pancreatic emulsions, where these are not readily accepted by the stomach."

From the *Medical Times and Gazette*, November 2d, 1878 :—"We have received a sample of a preparation called Maltine, which is

described as being a concentrated extract of *malted barley, wheat and oats*. It is prepared with great care by a process fully described by the manufacturers (Reed & Carnrick) in a pamphlet which they will, we believe, willingly supply to any medical practitioner. The preparation possesses many qualities of great importance. It is non-alcoholic; it is agreeable to the taste; from its being so concentrated it is more portable than the liquid known as Malt Extract; and it possesses the virtues of that preparation in a much higher degree, inasmuch as it combines the principles of the three cereals above named, and wheat and oats are especially rich in bone, fat, and muscle-producing elements. We have very good reasons for believing that it has been very carefully analyzed and examined by a competent authority, and proved to be very rich in diastase, in phosphates, and in albuminoid matters. It is very likely, therefore, to have considerable value as a digestive and nutritive agent in many wasting diseases, and cases of debility and imperfect assimilation. *Maltine* at any rate is well worthy of being put to the test practically by medical men, and it may be taken pure or mixed with water, wine or milk."

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### UTERINE DISEASES.

By E. H. MURRELL, M. D., Lynchburg, Va.

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It has been asserted that life is the most mysterious problem in nature, and that its duration is circumscribed by the laws of disease; consequently the incessant conflict which is waged between health and its insidious destroyer can never cease, but will ever continue to engage the attention of the chemist and pathologist in their profound researches of the best means of its preservation. Therefore, we need not be amazed or inquire why it is that the power of preserving life is held in such high estimation, or that the loss of it should be deemed a private misfortune or a public calamity.

Whatever may be the cause of constitutional debility and whenever prolonged, it must of necessity impair the healthy nutrition of the tissues, and lead to a low, inflammatory condition of the mucous membranes. The uterus and its appendages constitute no exception to the general rule, for whenever inflammation is lighted up in this organ, functional disturbance, accompanied by ulceration and hypertrophy follow as a natural consequence. On the other hand, it has been clearly demonstrated that constitutional debility of the gravest import and prolonged duration has its origin in those causes which induce sanguineous and muco-purulent discharges, continued pain, great despondency, and a general inability to partake of the accustomed food and exercise.

In the consideration of uterine diseases, including leucorrhœa, dysmenorrhœa, suppressed catamenia, menorrhagic and vaginal inflammation, it is proposed briefly to allude to the efficacy of the Bedford Alum and Iron Springs Mass as a curative agent, and to call attention to its tonic properties, which act most beneficially in their healthful restoration. By reference to the analysis of this Mass, it will be seen that it contains all the constituent properties most essential to the relief of morbid disease, namely by restraining the secretion while combining the tonic properties alike conducive to the improvement of the circulation and removing the causes which influence constitutional debility. For this reason, the water appears to exert a specific influence over the female organism, and often displays its wondrous power of relief after the unsuccessful employment of all other remedial agents.

A brief synopsis of the treatment of suppressed catamenia by the Bedford Alum and Iron Springs Mass which came under the immediate attention of the writer, will suffice to attest its virtues :

Miss. J. S., a resident of this city, aged 20 years, of delicate constitution ; had for months suffered from suppression of the catamenia which resulted in anæmia and great emaciation, attended with extreme nervousness, loss of appetite, constant cough, pain in the chest, night sweats, closely bordering on phthisis pulmonalis. After the exhaustion of numerous emmagogue agents which had been employed for months unsuccessfully, medical counsel was sought, and apparently with little hope of recovery. She was at once placed upon the free use of the Bedford Alum and Iron Springs Mass, which was continued for the space of three months, at the expiration of which time all organic disturbance was removed, with a complete subsidence of the symptoms before detailed, and a perfect restoration of her health, which has continued unimpaired to the present date.

Other cases might be adduced in testimony of the great efficacy of the Bedford Alum and Iron Springs Mass in the treatment of uterine diseases generally ; but enjoying as it does so largely the public confidence and endorsed by the well-tested experience of the medical profession, any additional evidence in support of its virtues and wide-spread reputation would only prove superfluous and uncalled-for by the most skeptical.

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## OBITUARY.

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ISAAC HAYS, M. D.

Dr. Isaac Hays, editor of the American Journal of Medical Sciences for 52 years, died in Philadelphia, Saturday, April 12th, 1879, 83 years of age.

## WILLIAM. A. DICK, M. D.

Dr. William A. Dick, formerly of Greensborough, N. C., and a son of the late Judge J. M. Dick, died in the town of Lumberton, N. C., on the 27th of March, 1879. Dr. Dick was no ordinary man. He was educated at the University of North Carolina, this institution conferring the degree of A. M. upon him in 1853. He graduated in Medicine at the University of New York, March, 1852; and began the practice of his profession in Lumberton in 1852. The medical profession has lost a bright light, and the community in which he lived a useful and honored citizen,

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## GEORGE B. WOOD, M. D.

On the 30th ult., George B. Wood, M. D., of Philadelphia, died, in the 83d year of his age.

Dr. Wood was born at Greenwich, N. J., March 13th, 1797; graduated from the University of Pennsylvania as long ago as 1818. His extended career has been full of work, diligently pursued and successfully achieved. He was for many years Professor of *Materia Medica* in the Medical Department of the University of Pennsylvania, and from 1850 to 1860 was Professor of the Theory and Practice of Medicine in the same institution. At the time of his death he was President of the American Philosophical Society. He is the author of many important medical works, those by which he is best known being the "Dispensatory of the United States," written in collaboration with Franklin Bache, and first published in 1833, and his "Practice of Medicine," which long enjoyed great popularity. He also wrote much on historical subjects beyond the limits of his profession.

## CARL F. BURKHARDT, M. D.

At a called meeting of the New Hanover County Medical Society to take suitable action in regard to the death of Dr. Carl F. Burkhardt.

The meeting was called to order by Dr. W. G. Thomas, President, and the following members were appointed to draft suitable resolutions: Drs. Love, Lane, and Wood.

It was resolved that the Society attend the funeral in a body.

WHEREAS, Dr. Carl Frederick Burkhardt has this day been stricken by the pitiless hand of death, we, the members of the New Hanover Medical Society, in honor of his memory and as an evidence of our esteem, adopt the following resolutions:

*Resolved*, That his professional attainments, his cultivated mind, his kind heart, his genial manners, deservedly won for him, who came among us a stranger, our respect and affection.

*Resolved*, That in his decease we lament a valued member of our profession, a good citizen and a gallant friend.

*Resolved*, That these resolutions be spread upon our minutes; that they be published in the NORTH CAROLINA MEDICAL JOURNAL, and in the daily press of this city; and that a copy duly attested, be presented to his family with assurance of our sympathy.

WM. J. LOVE,

WM. W. LANE,

THOMAS F. WOOD.

Wilmington, N. C., April 10th, 1878.

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## BOARD OF MEDICAL EXAMINERS.

*To the Editors of the North Carolina Medical Journal:*

In order to regulate the practice of Medicine and Surgery in the State of North Carolina, the General Assembly at the Sessions of 1858 and 1859, passed an Act to establish a Board of Medical Examiners.

Without a license from this Board, no physician who has commenced the practice of his profession in this State, "after the 15th of April, 1859, shall practice Medicine or Surgery, or any of the branches thereof, or in any case prescribe for the cure of disease, for fee or reward," nor "shall he be entitled to sue for or recover, before any magistrate or court in this State, any medical bill for services rendered." (See Laws of North Carolina, 1858-59.)

In conformity with the provisions of this Act, the State Board of Medical Examiners will meet in the city of Greensborough, on Monday, May 19th, 1879.

By authority of the Board.

PETER E. HINES, M. D., President.

HENRY T. BAHNSON, M. D., Secretary.

Salem, N. C., April 15th, 1879.

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*Medical Remuneration.*—Doctor: "Um! most insolent!" (To his wife), "Listen to this my dear." (reads letter aloud) "Sir, I inclose P. O. order for thirteen shillings and six pence, hoping it will do you as little good as your two small bottles of 'physic' did me.'"—*Chicago Journal and Examiner.*—*Punch.*

## BOOKS AND PERIODICALS RECEIVED.

Fern Etchings. By John Williamson. Specimen fasciculus.  
A Clinical Treatise on Diseases of the Liver. By Dr. Freid.  
Theod. Frerichs. Vol. 2. Wm. Wood & Co.

Difficulties and Dangers of Battey's Operation. By George J.  
Engelmann, M. D., St. Louis, Mo. From Trans. Am. Med. Asso-  
ciation, 1878.

Reports with Analyses of the Apollinaris Spring Neuenaha,  
Rhenish, Prussia. 1872. (Private and confidential).

Lectures on Practical Surgery. By H. H. Toland, M. D. Prof.  
of the Principles and Practice of Surgery. Second edition. Phil-  
adelphia. Lindsay & Blakiston, 25 South 6th Street.

Valedictory Address to the Graduating Class of Jefferson Medi-  
cal College, at the Commencement March 12, 1879. By Prof. J.  
Aitken Meigs, M. D. 1879.

Ninth and Tenth Annual Reports of the Maryland Eye and Ear  
Institute. No. 66. N. Charles Street. Baltimore, Md. George  
Reuling, M. D. Surgeon in charge.

An Address upon the Life and Character of Lunsford Pitts  
Yandell, M. D. Delivered before the Kentucky Medical Society at  
the meeting held in Frankfort, April, 1878. By Richard O. Cowling,  
A. M., M. D.

Ringworm in Public Institutions. From Trans. Am. Medical  
Association. Rosacea. Extracted from the Transactions of the  
Medical Society of Pennsylvania. By John V. Shoemaker, M. D.  
Philadelphia, 1878.

The Causes of Sudden Death of Puerperal Women. An Address  
delivered before the American Medical Association, June 5th, 1878.  
By Edward W. Jenks, M. D. Chairman of Obstetrics and Dis-  
eases of Women and Children. Reprint from Trans. Am. Med.  
Association. 1878.

Maternal Impressions: Mothers Marks. An Exposé of a Popu-  
lar Fallacy. By Roswell Park, A. M., M. D. Dem. of Anat.  
Chicago Medical College. Reprint from Southern Clinic. 1879.

A Manual of the Examination of the Eyes. A course of Lec-  
tures delivered at the "Ecole Pratique," by E. Landolt, Directeur.  
Adjoint, &c. Translated by Swan M. Burnett, M. D. Philadel-  
phia. D. G. Brinton, 115 South Seventh Street. 1879. Price \$3.



# NORTH CAROLINA MEDICAL JOURNAL.

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**M. J. DeROSSET, M. D.,** } **Editors,**  
**THOMAS F. WOOD, M. D.,** }

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Number 5.                      Wilmington, May, 1879.                      Vol. 3.

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## ORIGINAL COMMUNICATIONS.

### COUNTRY CLINQUES.

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VI—1. MINNIE-BALL IN THE TARSUS FOR 12 YEARS—  
EXTRACTION. 2. REMOVAL OF A MYOMA FROM SUPERIOR  
MAXILLA OF A CHILD, ONLY NINE MONTHS  
OLD.

BY A NORTH CAROLINA PHYSICIAN.

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1. James L., æt. 22, Serg't 2d N. C., Batt., in the first day's fight at Gettysburg received a gun-shot wound in the left foot, the ball entering at the tarso-metatarsal articulation, and ranging centrally downwards and backwards. An examination at the field hospital led the surgeons to believe that the ball had rebounded. In a short time he recovered sufficiently to walk about, and after being exchanged, was able to resume duty with his command. The wound, however, opened again and again, and the foot was the seat of severe pain after any unusual exertion. After the war he resumed his avocation of farming.

Twelve years after the reception of the injury, he presented himself to me for examination. He complained of frequent attacks of pain of a darting character, commencing at the old wound, and extending up the limb, until the whole body was in a quiver of agony. Generally tonic contractions of the flexor muscles accompanied the pain, and not unfrequently partial or even total unconsciousness. He was a powerfully built man, and on one such occasion, as his wife was bending over him to give him water, his arms closed around her with such force, that she was nearly suffocated before his clasp could be loosened by some neighbors, who fortunately happened to be present.

An examination of the foot showed only a slight, general swelling about the tarsus. The outside joint had normal mobility. The wound of entrance was sunken and closed, except in the centre, where there was a small scab, from beneath which a thin, yellowish pus exuded. On the inside of the foot was a small opening, which from its teat-like prominence, appeared to communicate with diseased bone. Just beneath this opening, in front and considerably below the internal malleolus, extending to the plantar surface, were two linear cicatrices crossing each other, the marks of a former unfinished operation. (Patient informed me that the operation was left unfinished, because of the alarming prostration which ensued during the administration of chloroform). As a consequence of this operation there was some loss of motion and sensation of the toes and ball of the foot.

With but little difficulty the probe was passed down the track of the wound, and at a distance of  $3\frac{1}{2}$  inches from the surface, it came upon an obstruction. It was firm and unyielding, but without the roughness and resonance of bone. I concluded that it was either the ball or some foreign matter, and my patient was so certain of the fact that he would not listen to the suggestion of a doubt. The opening on the inside of the foot was carefully probed, but without finding denuded bone.

I deemed it unwise to open up the old wound again, involving as it did, several bones and articulations. The inside of the foot was already considerably damaged by the former operation, and I did not like to open the plantar fascia and interfere with the important tendons and ligaments on the bottom of the foot. I therefore decided to operate from the outside.

The patient inhaled ether kindly and in fifteen minutes was completely under its influence. Passing a probe down upon the ball, I measured upon another probe lying parallel with the first, from the level of the point of entrance of the ball, three and a half inches upon the outside of the foot. This point, which was  $1\frac{1}{2}$  inches below and a little anterior to the external malleolus, was included in a V shaped incision with the base opening upwards. After the bone was laid bare, it was attacked with a  $\frac{3}{4}$  inch trephine. It yielded readily and was soon cut into, to the depth of an inch. The core was now extracted piece meal with chisel and gouge—a very difficult procedure. To my great satisfaction, upon clearing out the cavity, I found the point of the ball in the centre of the opening. The trephine had again to be used to cut out the bone which surrounded it, until it could be pulled and prized out of its closely fitting bed. We found the bone surrounding the ball covered with a smooth, tough membrane, which secreted a scanty pus. The ball was considerably flattened, and at the bottom of the wound it had been deflected from its course, so that its point was in the direction of the counter-opening. It was only slightly discolored.

No vessels or important structures were divided in the operation.

The wound was carefully cleansed, and the external incision partially drawn together with silver sutures, after which it was covered with a rag soaked in laudanum. (I invariably use this as a dressing, keeping it up until pain is allayed, when I substitute whiskey for laudanum. I do not believe that anything can be suggested which is more comfortable and generally satisfactory). Considerable pain was experienced for two or three days. Surgical fever was very slight. The external wound was not allowed to unite, and the opening in the bone was frequently syringed out with carbolyzed water. By the 10th day, granulations entirely covered the new wound in the bone, and the old wound was soundly healed. On this day, patient returned to his home, fifty miles distant.

A year later I saw him again, when he informed me that he had been able to go about on his foot three weeks after his return home, although it was several months before the wound was entirely healed. Since that time he has been free from all pain and trouble. He can walk with any man in the State, and claims to be again the champion dancer and jumper in his mountain country.

II. W. H. S. was observed to nurse with difficulty when three months old, and upon examining the mouth, there was found on the alveolar fold of the upper jaw a little to the left of its middle, a small, hard, red lump. This gradually increased in size, until at nine months, it was larger than a walnut. It now forced out the upper lip so that the mouth could not be closed. Pushing upwards it nearly obliterated the left nasal orifice, and could be seen and felt in the canine fossa nearly to the malar bone. Viewed internally, it presented a prominent, smooth, bluish red, much injected surface, crossing the median line, and extending backwards more than an inch. The folds in the mucous membrane which ordinarily appear in the roof of the mouth, were entirely obliterated over the extent of the tumor. To the touch it felt hard and unyielding. The child was fretful and scarcely able to take food; the necessity for operative interference was therefore urgent.

My diagnosis was that the tumor was in the maxillary bone, and probably extended into the antrum. In this opinion I was upheld by the rest of the physicians who were assembled to assist in the operation, with the exception of the regular family attendant, who contended that the tumor was altogether external to the bone. As the result will show, neither was wholly wrong.

The child, lying upon its left side, was held on the knees of the attending physician, and carefully anesthetized with chloroform. Exploratory punctures showed that the tumor was covered with bone, for a considerable extent, both posteriorly and anteriorly, while the needle passed upwards more than an inch, before encountering bony resistance. The punctures bled freely, and as an exploratory incision, made by another physician some time before, had given rise to severe hemorrhage. I resolved to cut around the tumor as much as possible, before cutting into it. My first incision separated a portion of the soft tissues at the side, and cutting more anteriorly, I came upon a large incisor tooth, which was extracted by a dentist friend in attendance. To its incomplete fang was attached a portion of the tumor. This proved to be a bluish-brown, from striated tissue, resembling in all respect the muscular structure of a chicken gizzard. Hemorrhage was so slight, that I no longer hesitated to make a crucial incision over the length and breadth of the tumor, which was then easily detached from the un-

derlying and overlapping bone, with a gouge. Its length proved to be nearly two inches, breadth and depth a little more than an inch—with nodular prolongations in various directions. A considerable portion of its bony wall was now cut away to enable us to unite the edges of the palatal wound with silver sutures. From the opening in the alveolar portion, the cavity was packed with benzoyated cotton. About two ounces of blood were lost in the operation—no vessels had to be ligated. The child was under the influence of chloroform nearly two hours. Almost immediately afterwards it awoke, and eagerly took nourishment. The packing was discontinued on the third day. The sutures were taken away on the fifth day, after which the patient required no further attention. Six months after the operation the deformity was scarcely perceptible, and there has been no sign of a return of the tumor. It is hardly to be expected, that teeth will appear in the site of the morbid growth.

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## THE PROPERTIES OF HUMAN INTESTINAL JUICE.

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An unsuccessful herniotomy, which led to a fistula that divided the bowel near the junction of the small and large intestine into two distinct portions, has enabled Dr. D. Emant, of St. Petersburg, to make some experiments with pure intestinal secretions, collected from the large intestine between the fistula and the anus. His results have been communicated as a preliminary notice to the *Centralblatt Med. Wis.*, No. 7, 1879, as follows: 1. Human intestinal juice is a clear, thin liquid, of a strong alkaline reaction. 2. The total quantity secreted is not large. The secretion is increased during digestion, but during the night almost arrested. It is not affected in any way by purgatives. 3. It does not contain any ferment capable of digesting albumen; and has no action whatever on any kind of protein. 4. It converts starch into grape-sugar, and also changes cane into grape-sugar, but leaves inulin (which has been recommended for diabetic patients instead of bread) unaltered. 5. It emulsifies fats containing *free* fatty acids, but not neutral fat in which those acids are combined with glycerine.—*Med. Times and Gazette.*

## VERATRUM VIRIDE IN PUERPERAL ECLAMPSIA.

By CHARLES JAMES O'HAGAN, M. D., Greenville, N. C.

On the night of November 13th, 1878, was hurriedly called to see Mrs. A., living about three miles from town. The messenger could give no information as to the nature of the case beyond the customary statement, that she was "bad off."

On arrival found the patient, a young married woman in her first pregnancy in the midst of a frightful convulsion. As soon as possible made a digital examination to see whether she was in labor; and if so, how far advanced; found the os closed; and no sign of uterine contractions.

The woman was young and plethoric, and in all respects a good case for bleeding, with which I proposed to commence treatment; but my lancet case which had not been out of my pocket in years, was now missing—and on examining my medicine chest my mortification was complete on finding I had neither chloroform nor chloral among its contents.

While I was internally debating whether I would return to town and provide myself with the necessary remedies—it occurred to me to try the effects of veratrum viride—of which I had a vial of Norwood's tincture.

The patient's pulse at that time was 156 per minute, the face congested and livid and the breathing stertorous.

It is unnecessary to add that she was unconscious.

At that moment she had another convulsion so terrible that I feared she would never come out of it alive.

Oh! how I wished for a lancet. However, before the fit was entirely over, I threw ten drops of Norwood's tincture into the arm at the insertion of the deltoid and waited results. I did not have long to wait.

In ten minutes after insertion, the pulse fell to 140, in five minutes more to 120, in ten more to 90, at which time a profuse sweat broke out over the whole body, the face became pale and the breathing less labored; but the effects did not stop there. The pulse continued to fall rapidly, until it got to 40, with intense sick stomach and vomiting of glairy mucus. The surface was cold and clammy,

and the whole system completely relaxed. In a word, the tonic effects of the veratrum were present in an aggravated form. The situation began to be serious. The patient was still unconscious, the attendants supporting the head over the edge of the bed to assist in the effort at vomiting. It was impossible to give anything by the mouth, and the hypodermic administration of morphine, seemed to be imperatively called for. Half a grain of sulph. morph. was inserted in the other arm, which, in fifteen minutes quieted the retching; but the pulse still remained at 40, and the same profuse cold perspiration still bathed the surface of the body. There were no alcoholic stimulants in the house, and while a messenger was dispatched after some, I concluded to try the hypodermic use of aromatic spirits of ammonia.

Half a drachm without dilution was injected into each arm, and before the messenger returned reaction set in. It was aided by hot bricks to the feet, spine and pit of the stomach.

I remained with the patient all night; she never had another symptom of convulsion, and became partly conscious in the morning when her bowels were moved by an enema of salt and water, and she was left in a comfortable condition.

She was visited again in the evening, and was fully conscious. Some urine, which had been saved for me, was now examined and found to contain 60 per cent. of albumen. She had also considerable oedema of the feet and legs and the face was puffy; but whether the result of albuminuria of the convulsions of the previous night is not clear to me.

She was immediately placed on a diet of skimmed milk of which the family had an abundance, and directed to take  $\frac{1}{2}$  oz. of bitartrate of potass. every alternate night until her confinement, which took place ten days afterwards. In five days there was only a slight appearance of albumen; but she had no convulsions and passed safely through a severe and prolonged labor.

This case is reported because, I think, it proves the undoubted value of veratrum viride in eclampsia, and according to a report of a police surgeon, published in the *New York Medical Record*, in the latter part of last year, it was of very great value combined with sulph. morphia in controlling epileptic convulsions.

If I were compelled to use it again in a similar case, I would not

give more than five drops hypodermically, and repeat again if necessary; but although it might not act so powerfully in other cases as in this, it is well enough to be cautious, in dealing with so powerful a drug. In the May number, 1871, of the *American Journal of Obstetrics*, is a very valuable article by Dr. Herbert Fearn, of Brooklyn, "on veratrum viride as a substitute for blood-letting in puerperal convulsions," which reports a large number of cases, all showing its great power in controlling eclampsia; but in the cases given it was administered per orem.

That we have then in veratrum viride another powerful weapon with which to combat this terrible disease is clear to my mind; and to call the attention of the profession to it, will, I trust, be a valid excuse for reporting this case.



## A CASE OF CHLOROFORM NARCOSIS—RESTORATION BY THE METHOD OF INVERSION.

Reported by WM. R. WILSON, M. D., Townesville, N. C.

Mrs. E., æt. 35, mother of three children, about the first of last February, aborted a two months fœtus. The abortion was followed by a severe attack of pelvic peritonitis, for which I was called to attend her. Uterine examination revealed complete retro-version of that organ, which, no doubt, was the cause of her miscarriage. Of course, no attempt was then made to replace the organ, but all my efforts were to combat and limit inflammatory action. On the 11th of April after a tedious convalescence, and the patient seeming only to suffer from the local effects of the displaced organ, it was determined to attempt its reduction. The attempt provoking considerable tenesmic effort upon the part of the patient, I concluded to anæsthetize her. Having no ether and being ten miles from a drug store, I determined to use chloroform.

The patient was placed upon a table upon her back, her clothing loosened about her neck and stomach and about one drachm of chloroform was poured upon the inhaler (an old-fashioned cone,



made with a newspaper and filled with a handkerchief). A few inhalations seeming to produce a marked affect, I at once placed her in the left lateral position, saw that she had ample breathing space; introduced Sims' speculum; carried the sound into the uterus to verify my diagnosis, when she complained that I hurt her and begged for more chloroform. I poured what I thought to be one-half drachm upon the inhaler, placed it about one-half inch from her mouth in the hands of her husband with directions to watch her pulse and breathing; then attempting to replace the uterus by pressure exerted upon it through the vagina. She still complaining of pain, I directed her to take a long, deep inspiration. I carried two fingers into the rectum and was just beginning to feel that the organ was yielding to the pressure, when Mr. E. exclaimed, "my wife is breathless and pulseless!"

It was even so, in a moment she passed from a state in which she complained of suffering to a condition of seeming death, "breathless and pulseless." At once I suspended her from her husband's shoulders, head downwards, dragged out her tongue and commenced artificial respiration.

After a long, long interval of dreadful suspense she gave a feeble gasp; taking fresh courage and re-doubling my efforts it seemed as if the feeble gasp was only the last effort of expiring nature. Through the open window could be heard the glad and happy prattle of her little children at their play, utterly unconscious of the desperate state of their mother. What poignancy this gave to my feelings can only be known by those who have passed through a similar ordeal.

Almost hopeless, but continuing my efforts at artificial respiration. Wishing for nitrite of amyl, but having none, at last I was rewarded by a living, sighing respiration, then another, and another, at shorter intervals. Placing the patient back upon the table, in the recumbent position, but calling to mind the report of Marion Sims of a similar case, in which the breathing immediately ceased, whenever the patient was changed from the inverted to the recumbent position, her head was made to project from the end of the table and so lowered upon pillows until perfect rhythm of lung and heart action was restored.

There is nothing new in this case or original in its treatment; but

it is placed upon record as another finger post pointing to the danger that lurks in the lethean drug. So far as I could judge there was nothing in the history of the patient or in her condition at the time, contra-indicating the use of chloroform. The amount used could not have exceeded two drachms—and a good deal of that must have evaporated in'to the atmosphere of the chamber. The writer for four years during the war, used and saw it used hundreds of times; has used it frequently since, though lately preferring ether, and never had before any serious accident. He administered it in this case until within a few seconds of its almost fatal result, then placing it in what he considered the proper position, and intrusting it to the hands of an intelligent man, with direction to watch pulse and breathing, the patient complains that he is hurting her and almost in the next moment, he is startled by the cry, "My wife is breathless and pulseless." The conviction is forced home to him, that in some individuals there are contra-indications to the use of chloroform only to be developed by experiments and that the experiment may cost a valuable life. The treatment by inversion of the patient ought to be known as the *leading* method by all who use this agent and if perchance the blood can only *gravitate* to the great nervous centres that preside over the functions of respiration and circulation, there may be a new lease upon life.

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*Domestic Tracheotomy.*—A small yearling youngster at Fort Wayne, Indiana, had the misfortune to suck a kernel of corn into his windpipe the other day. The doctor was sent for in haste, and announced that it would be necessary to perform the operation of tracheotomy to save the child's life. The Hoosier mother, familiar with a practice of domestic surgery of a different sort, and not pleased with the idea of having the child's windpipe cut open, seized the sufferer by one leg, and holding him up, head downward, administered several resounding spanks. There was a sound not unlike the report of a pop-gun, and the kernel of corn was ejected with great force. The child was at once relieved, and recovered, of course.

The astonished physician declared that, for a "corn-doctor," this Hoosier mother beat them all hollow.—*Sanitarian.*

## SELECTED PAPERS.

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### COLOR-SIGHT AND COLOR-BLINDNESS.\*

By J. R. WOLFE, M. D., F. R. C. S. E.

Surgeon to the Glasgow Ophthalmic Institution, Lecturer on Ophthalmic Surgery in Anderson's College.

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Color-blindness having for the last few years occupied so much of the attention of the literary and scientific world, I wished to ascertain to what extent that defect exists among the rising generation of this community. With this view we formed a commission, consisting of Dr. Cumming, Dr. Pickering, and myself, and, with the permission of the School Board, we visited several schools and examined upwards of 2000 children. I propose in this paper to submit the result of our examination to this Society.

It is a comparatively recent subject. The first cases of color-blindness were published by Joseph Huddart in the *Philosophical Transactions*, London, 1777. But the subject excited little interest until the year 1794, when the celebrated English chemist, Dalton, who was red-blind, published an account of his own case, which attracted so much attention—it being considered a rare curiosity—that subsequent writers called the defect Daltonism.

In 1805 that stupendous genius Goethe published a treatise on the pathology of color-sight. In 1837, Professor Seebeck was the first to examine a number of color-blindness, and to classify the degrees of their abnormal condition. But the most important work on the subject was that of Dr. George Wilson, Professor of Chemistry in Edinburgh, which first appeared in the *Monthly Journal of Medical Science* for November, 1853. “My own special attention,” says Wilson, “was directed to the subject from the blunders which I found many chemical pupils make in reference to the colors of compounds. After making every allowance for imperfect exposition on my part, and insufficient attention on the part of my students, and after also making a large deduction for inaccurate answers on the score of imperfect remembrance and inability to name colors, I still found, in the laboratory and lecture

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\*Read before the Glasgow Philosophical Society, March 5, 1879.

room, that many a pupil was puzzled to describe the changes which occur when an acid or an alkali acts upon a vegetable coloring matter, although, to a normal eye, these changes are of the most marked character, and that, in general, I could count with little confidence upon accurate answers to questions regarding the colors of bodies."

A great deal has since been written on the subject, both in France and Germany. The most comprehensive treatise on color-blindness appeared recently by Professor Holmgren, of Upsala, Sweden. It is only just to the Edinburgh Professor to say that Holmgren's most striking points are due to Wilson's suggestions. Great credit is due to Dr. Joy Jeffries, of Boston, for his valuable efforts to direct public attention in America to that subject, Dr. Stilling, of Cassel, and Dr. Cohn, of Breslau, have also given us valuable contributions to the study of this subject, and my excellent friend, Dr. Hugo Magnus, of Breslau, has written several *brochures* which have called forth high eulogiums from Mr. Gladstone, who published a paper on "Color Sense of Homer" in the October number of the *Nineteenth Century* in 1877. Mr. Gladstone's paper was mainly instrumental in directing public attention to the subject in this country—the more so, that it was at a time of feverish political excitement that England's great statesman and scholar was able to shake off Russ and Bulgarian, and to devote some hours to the study of the "Color Sense of the Homeric Period." I propose to speak to you this evening on perception of color in its practical bearing upon certain occupations, especially *employés* on railways and sailors. A few introductory remarks on the physiology of vision will facilitate the treatment of the subject.

The eye is the organ which brings us into contact with the world around us, by giving us an image of objects; of their size, shape, and color. The medium through which this effect is produced is primarily the retina and optic nerve. The retina receives the impression of light and color emanating from objects, which impression is conveyed to the brain by means of the fibres of the optic nerve. This is the organ of vision in its most rudimentary form, as met with in the lowest forms of animal life, consisting of a nervous cord, and coloring matter for absorbing the rays of light. But in ascending the scale of animal life, we have the visual

organ in a degree of perfection and development commensurate with its requirements.

The human eye in its totality may be regarded as a photographic apparatus, consisting of retina to receive the image, optic nerve to conduct the impression; compound lens for refraction, camera, adjusting apparatus, nerves for regulating its movements, and nerves for its nutrition. When we consider that the eye is a self-adjusting apparatus, serving the purposes both of telescope and microscope, and that the retina is a kind of plate, which not only receives the impression of objects from without, but upon which also are registered the changes that are going on in the brain, heart, kidneys, and other organs; and that its materials are composed of organic substances subject to structural changes, we must admit that, with all its optical imperfections, the eye is an instrument not lightly to be spoken of.

That the retina is a membrane corresponding to the photographer's plate, is a statement which I could not have made to you two years ago. All that we then knew of the retina was, that it consisted of five layers, and that the outer layer (rods and cones) was the impressible membrane which Heinrich Muller demonstrated in 1874, but by what mechanism we were left to mere conjecture. It is only two years since Prof. Boll, of Rome, published his observations on the photo-chemical action of the retina.

*Experiment.*—Take a frog, and keep it in darkness for some time, then decapitate it, and keep the head in a dark place for twenty-four hours; remove the eye-ball, open it, and examine the retina, which you will find of a beautiful red color; expose it to the sunlight, and the red gradually vanishes, the membrane gets pale, then yellowish, and ultimately becomes like white satin. This red principle of the retina, which is generated in darkness, and decomposed in sunlight, Boll calls erythropsine. That it exists after the death of the animal, shows that it is not a transitory property, but a durable chemical element of the retina, analogous to the hæmoglobin of the stroma of the red corpuscles of the blood.

The erythropsine is transformed by the light into several physiological combinations, the same as hæmoglobin is changed by the action of different gases. The different chemical combinations, resulting from the action of light upon the erythropsine—in other

words, this photo-chemical process—constitutes the essence of the perception of light and color.

There is another factor in this physiological laboratory which we must notice—namely, behind the retina there is a layer of epithelium, covered with pigment cells of hexagonal shape. These cells contain oil globules, which Boll considers to be the primary materials from which the erythropsine is incessantly reproduced.\* The experiments made by Boll upon frogs, and cartilaginous and osseous fishes, have been repeated with the same result upon the human subjects by Professors Schenke and Zuckerkandel, of Vienna, after a capital execution.

*A propos* of the photo-chemical theory, it appears to me to bring us one step nearer to a comprehension of the intimacy which exists between mental operation and physical action. Without losing myself in metaphysics, I would merely indicate that it shows that the image of objects is actually impressed on the retina, which the mind stores up: memory is the faculty of bringing forth these plates when required. Thus the analogy between the retina and the photographer's plate is strictly correct, only that the retina gives us a chromo-photograph.

Now with regard to the perception of color. Newton has demonstrated that white light, as emitted from the sun or from any luminous body, is composed of seven different kinds of light, viz.: red, orange, yellow, green, blue, indigo, and violet. If we admit a beam of the sunlight through a small hole in the window-shutter of a dark room, it will go on in a straight line and form a round white spot on the wall. If we now interpose a prism whose refracting angle is such that this beam of light may fall upon its first surface and emerge at the same angle from its second surface, and if we receive the refracted beam upon a screen, instead of a white spot, there will be formed upon the screen an oblong image of the sun, containing the seven colors, which is called the solar or prismatic spectrum. These seven colors are called primary colors,

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\*These peculiarly shaped pigment cells behave very curiously. They seem to be migratory cells. When the eyes have been kept in a dark place or in a red or yellow light, the retina can be easily separated from the pigment layer, as a distinct membrane; but when the eyes are exposed to white, green, blue, or violet light, the pigment extends into the interstices of the retina, and the rod and cone layer cannot be separated from it.

because they cannot be decomposed : pass one of them through a prism, and it will merely be bent, the color still remaining the same. All colors used in the industries are only mixtures of different pigments, which are decomposed by the prism.

Adopting the undulation theory of light, and looking at the solar spectrum, we find that red, which has the longest wave, is the least refrangible color ; whilst violet, which has the shortest wave, is the most refrangible ; and green, which has the medium length of wave, occupies the middle of the spectrum or is of medium refrangibility.

Upon this simple view of the subject is founded the theory of perception of color, first propounded by Thomas Young, and lately defended by Helmholtz, which is generally adopted under the name of the Young-Helmholtz theory, which is this, that the retina has three distinct kinds of nervous elements, each of which perceives one of the three fundamental colors, red, green, and violet. The first of these elements is excited in the highest degree by the red rays, but also slightly by the green, and feebly by the violet rays. The second category is impressed by the green rays, and also feebly by the red and violet rays. Thirdly, the violet rays excite strongly the elements of the third category, which are little sensible to the green rays, and in a still less degree to the red. Every one of these elements, when excited, transmits to the brain the impression of its own fundamental color. The impression of the intermediary colors is given by the excitation of two or three of these groups in different degrees. When all the three are equally excited, the result is white or grey color.

This theory, although the only explanation we are at present able to give of chromatic perception, yet, as microscopic anatomy has never demonstrated these three fibres, we must still regard as merely a hypothesis and provisional, which may belong to the same class as that of luminous perception, prior to Boll's discovery of the photo-chemical process. But with this new point of departure, I venture to think that we may yet construct an ophthalmic-spectroscope, or another apparatus to explore the retina, and chemists may yet succeed in analyzing the erythropsine. We may, perhaps, find in it a more simple explanation of the perception of color. The little that we do know of the behavior of erythropsine, under the

influence of various colored rays, is sufficient to show that it is an important factor in chromatic as well as in luminous perception.\*

Since writing the above, I received a communication from Professor Boll, informing me that he had several interesting conversations with Helmholtz on this subject. He says: "On the main point of the question, Helmholtz agreed with me entirely, but some of his observations contributed very largely to correct my first views. I still continue to retain as certain the Young-Helmholtz theory that every sensation of color is composed of three different sensations. I admit in the retina the existence, not of three nerve-fibres, but of three different kinds of percipient organs—viz.: 1st. the pigment cells; 2nd, the cones; 3d, the rods. Every sensation of color is threefold, being composed of three different irritations—the irritation of the pigment cells, the irritation of the cone, and the irritation of the rod. Helmholtz agrees with me, that the proofs for this new theory are quite sufficient." He read a memoir before the *Accademia dei Lincei*, entitled "*Tesi ed Ipotesi nella Sensazione della Luce e dei Colori*," which will be published next month.

Every healthy retina, then, receives an impression of different lights and also of different colors. In a state of disease, there are abnormal sensations of color, as, for instance, in some forms of atrophy of the optic nerve, in hysterical epilepsy, and in the case of habitual drunkards, etc.; but every retina in the exercise of its healthy functions, is capable of receiving the impression of color and its various shades, and of communicating that impression to the brain. The acuity of perception of the different shades may be developed by practice, the same as the ear to notes, but that

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\*1. In complete darkness, retinal red is like the middle of spectral red. 2. After long exposures to solar rays, the retina becomes colorless. 3. In red light, retinal-fundamental red becomes more saturated, like Pompeian or brownish red. 4. Yellow light does not much alter the fundamental color of the retina, but renders it a little brighter. 5. Green light: (a) the action of an intense green light, when of short duration (or one of medium intensity prolonged), changes the fundamental color into purple red, which, getting paler, turns into rose color; (b) when an intense green light is prolonged, the red purple passes off, becomes paler, and at last colorless. 6. Blue and Violet: (a) when of feeble intensity (or intense and of short duration), the color changes into a muddy violet; (b) when the intense rays are prolonged, the violet is effaced, and the retina becomes quite colorless. 7. Ultra-violet rays have no physiological action upon the retina, however long they are continued. These observations are in many respects incompatible with the Young-Helmholtz theory of color-perception.



physiological faculty cannot be absent, unless in exceptional cases, when we must regard it in the same light as hare-lip, cleft-palate, deficiency of fingers or toes, or any other congenital abnormality. The theory advanced by Magnus is, that man in his primitive condition, had no perception of color ; in the next stage of development, red and yellow became visible ; in the third, green and its varieties ; and in the fourth, blue and violet became to be recognized. He thinks that will account for the confused manner in which the ancient writers describe colors. Indeed, in speaking with a well-educated color-blind person, he was reminded of reading Homer,

Mr. Gladstone, who twenty years ago was struck with the fact that Homer's color-adjectives and color descriptions of the poems were not only imperfect, but highly ambiguous and confused, says, "I rejected the supposition that this was due to any defect in his individual organization, and found that his system of color, or rather his system in lieu of color, was founded upon light, and upon darkness its opposite or negative, and that the organ of color was but partially developed upon the Greeks of his age." Now, Magnus, adopting the development theory, has with great erudition endeavored to reconcile it with the physiological action of the retina, and Mr. Gladstone finds in it countenance for the opinions he had long since expressed with regard to the Homeric Poems.

From the views given above of the physiological action of light on the retina, it will be seen how entirely I differ from my friend, Dr. Magnus, as also from Mr. Gladstone's reading of Homer.

Does the Homeric text shut us up to the conclusion that either the poet or the whole Greek nation were color blind ?

It appears to me very difficult to entertain such a view. The Greeks of the Homeric period could not have been color-blind, when we find that all the colors of the spectrum are found in their language. They have μέλας, black ; λευκος, white ; ερυθρος, red ; φοῖνιξ, dark red ; ξανθος, auburn ; χρῶσσεος, golden ; γλωρος, greenish-yellow ; κυανος, blue ; πορφυρεος, purple. That they sometimes misapplied the terms has nothing to do with the question ; it is quite a common occurrence in the poetry of our own advanced age. The expressions κροκοπέπλος Ἥως, saffron-robed Aurora, and δροδακτυλος

'*Ἥως*, rosy-fingered Aurora, are exquisite personifications, although the tints of the rising sun may not correspond to a nicety to rose or saffron color. The *realistic* word-painter Dante has also pictured Aurora—

“ Si che le bianche e le vermiglie guance,  
La dove io era, della bella Aurora,  
Per trappa etate divenwan rance.”—(*Purgat*).

Of which the following is a faint rendering:—“So that, there where I was, the white and vermilion cheeks of beautiful Aurora, have, through advanced age, become of orange hue.” Bearing in mind what Macaulay says of the Florentine poet, we must admire this perfect picture as characteristic of, and in keeping with, his *intense realism*, if I may use that expression; but it cannot be admitted as superior, if at all approachable, to the sublime, suggestive touch where '*Ἥως μεν χρυσοπέπλος ἐκίδνατο πᾶσαν ἐπ' αἶαν*—saffron-robed Aurora was spread over all the earth. Still less can we make of Homer's varied application of the term *πορφύρεος*, purple, for this color is not found in the spectrum, but is a mixture of its two extremes—viz.: red and ultra-violet. It may, therefore, with propriety, be applied to female robes, to the rainbow, to blood, cloud, &c.

We may notice in passing, the manner in which Homer treats ladies' eyes. Juno, as the queen of gods, the dignified matron of Olympus, is described as *Βωωπὺς Ἥρη* (ox-eyed)—meaning a large, round, dark eye; while Minerva, the goddess of wisdom, is described as *γλαυκῶπις Ἀθηνη*, which we were taught to translate “blue-eyed Minerva,” until informed by the high authority of Mr. Gladstone that it does not refer to color at all, but it is to be translated “bright or flashing eyed.” There is no doubt, however, that the Greeks used *γλαυκῶπις* to signify blue-eyed, for Herodotus speaks of the Budini, a Scythian tribe in Southern Russia as *γλαυκὸν καὶ πορρὸν*, blue-eyed and red-haired.

Among the interesting communications which Mr. Gladstone's article has called forth, is one by Herschel, in *Nature* for November 28th, 1878, who calls attention to the fact that Homer, once at least, styles himself “a downright blind man;” and Herodotus, in his *Life of Homer*, states that “he was born 167 years after the

Trojan War, and when still a child was adopted by his step-father, to whom he succeeded in the management of a school. At an early age, however, he set out for distant voyages. When about thirty-four years of age, he lost his sight from a chronic disease of the eyes. Previously, when at Ithaca, he had a narrow escape from that calamity." Judging from this epitome, I think it most probable that he was neither blind nor color-blind, but his vision was dim from an attack of Egyptian ophthalmia, which he contracted on his voyage. The quotation from Herodotus just referred to can hardly be construed into anything else than a relapse of that affection which he contracted at Ithaca. In the East a blear-eyed person is called blind, but Homer may have been suffering merely from partial opacity of the cornea, the consequence of the affection just mentioned, which a strolling minstrel is likely to get.

I examined a large number of discharged soldiers and others suffering from Egyptian ophthalmia (some in its most aggravated forms), and I found that the perception of color was not prejudiced thereby.

Reference is made by Mr. Gladstone to the Prophet Ezekiel (i. 27, 28), who was also in a backward state in regard to color-perception. The prophet describes the rainbow—"I saw, as it were, the appearance of fire, and it had brightness round about. As the appearance of the bow that is in the cloud of the day of rain, so was the appearance of the brightness round about," which, Mr. Gladstone thinks, cannot be explained but by supposing that, for the eye of the prophet, red was the fundamental and exclusively prevailing color of the rainbow. We are not told whether we are to infer that the Prophet Ezekiel himself was color-blind, or whether the Jewish nation of that period were in a backward state. If the Homeric argument is to apply to Ezekiel, it would be very remarkable indeed, for in that case the Jewish nation, instead of progressing in the appreciation of color, must have sadly degenerated, for we find that nine centuries before Ezekiel, when they had just escaped from Egyptian bondage (Exodus xxviii, 17-21), Moses commanded the children of Israel to set the breastplate of the High Priest with twelve stones. Amongst these were the carbuncle, emerald, sapphire, amethyst, etc., representing all the spectral colors. That the primitive man was not born with an absolute blindness to color,

and that his chromatic perception was not left to progressive education of the eye, is proved from the fact that the mother of mankind could distinguish the color of the fruit, for she saw it "beautiful to the eye;" and we know that a color-blind person cannot distinguish ripe cherries, strawberries, or apples, from the leaves, except by the form.

It appears, therefore, that Dr. Magnus, misled by the beautiful Darwinian theory of development has entangled Mr. Gladstone in a hypothesis, which from a physiological, as well as from a historico-critical point of view, cannot be seriously entertained.\*

But the ethnological question, however interesting, sinks into insignificance when compared with the practical aspect of the subject, which involves the interest and safety of the public.—*Medical Times and Gazette*.

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## ON OZONE IN RELATION TO HEALTH.†

By HY. DAY, M. D., F. R. C. P., London.

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"Since the state of life necessitates the state of death, and since the functions of life are productive of decay, it becomes evident that in the scheme of nature there must exist the means of breaking up all effete and noxious compounds, the resultants of decay, into either their original elements or into other innocuous compounds fitted again to serve and subserve the purpose of vitalized matter. The best agent—perhaps the only agent—suited to the performance of such a duty is that all pervading elementary gas, which Priestly (its discoverer) called vital air—a gas now universally known under the name of oxygen, and found to be present in our atmosphere to

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\*In thus speaking of Magnus' views, I refer only to "Die geschichtliche Entwicklung des Farbisinnes" (Leipzig, 1877); but we are indebted to him for his excellent publications on the subject, "Die Farbenblindheit" (Breslau, 1878), and "Beiträge zur Kenntniss der Physiologischen Farbenblindheit," in *Graefe's Archiv* (Berlin, 1878). It is also with great pleasure that I embrace this opportunity of expressing my high appreciation of his Ophthalmoscopic Atlas, which I think cannot be surpassed.

†An address delivered before the Sanitary Institute of Great Britain and Ireland at Stafford, on Thursday, October 3d, 1878.

the extent of one part in five. Oxygen, you are aware, is essential to everything that lives; but, in addition to and beyond this, it enacts the important part of Nature's greatest scavenger by effecting those very decompositions the necessity for which I have just referred to. It appears that under certain conditions, this gas has the power of combining with itself, or, speaking more correctly, I believe, of existing in a condensed form. So condensed, we recognize it under the name of ozone, the name having been given to it in consequence of its possessing a very disagreeable odor. It is in this condensed condition that oxygen (ozone) appears to exercise the intensity of its action in a manner so remarkable that I have chosen it, and its relation to health and disease, as the subject of the present address."

The speaker then traced the history of the discovery of ozone, step by step, to Schönbein, who held the opinion that ozone resulted from the action of electricity on oxygen; to Odling, who started the theory that ozone was condensed oxygen; and to Soret, who abundantly confirmed by experiments the correctness of the theory. There were various methods of producing ozone, one of which was the discharge of the spark through oxygen gas. What was called the physiological (or more correctly, the pathological) action of ozone had been well studied. He said:

"If a warm-blooded animal be placed in a glass chamber and subjected to a stream or ozonized air; the oxygen of the air having been ozonized to the twelfth part, and the influence of carbonic acid being entirely excluded, special phenomena are quickly displayed. The first sign or symptom is an irritability of the mucous surface of the nostrils and of the conjunctivæ; there is often free secretion of saliva, and even profuse sweating in those animals that exhibit sweating. There is also thirst and dryness of tongue and nostrils. These symptoms are succeeded by great rapidity of respiration, and soon by violent action of the heart. When the chest is listened to (auscultated) in this stage there is always dry, bronchial breathing, and a whistling sound as in the first or preliminary stage of acute bronchitis in the human subject. The effect of the ozone being sustained, cough manifests itself, followed by secretion of frothy fluid from the bronchial surface. This is equivalent to the congestive stage of bronchitis. Finally there is lividity of the skin,

of the nose, nostrils, and lips, great coldness of the surface, gasping respiration, jactitation, and death—the death being often sudden. This may be said to resemble, in a very perfect manner, the exudative stage of bronchitis. This order of symptoms or phenomena has been observed by all experimentalists.

“It was, some time since, pointed out with particular care by Dr. Richardson, and my own experiments, some of which Dr. Richardson witnessed, were attended with corresponding results. The morbid appearances presented after death from ozone in warm-blooded animals are principally confined to the respiratory passages. If an animal be killed during the first stage, the bronchial membrane will be found to be dry, deeply congested at spots, the lung structure being ecchymosed, and both sides of the heart full of blood. In the second stage the whole lung is congested, the bronchial surface being red, the right side of the heart engorged, the left side of the heart empty. In the third stage the lungs are also intensely engorged, the bronchial surface paler and filled with frothy fluid, the right side of the heart full, the left side empty. In cases where animals are removed from the chamber at the beginning of the second stage, and, after some exposure to the air, subsequently die, the morbid anatomy is rather that of pneumonia than bronchitis. In one experiment that I performed the stage of hepatization (that is, solidification) was so distinctly that I could not have recognized it, by the lung itself, from hepatization of the lung in the human subject after pneumonia. These experiments certainly seem entitled to be received as evidence in favor of the idea that ozone may possibly be provocative of certain epidemics—I mean of catarrh, bronchitis, and the like.”

The speaker next referred to experiments by Dr. Moffatt, whose views were the outcome of ten years' continued observations. During the time that Dr. Moffatt was making observations as to the atmospheric conditions under which phosphorescence and the appearance of ozone took place, he noticed that cases were common of apoplexy, epilepsy, vertigo, epistaxis, neuralgia, diarrhœa, with or without cramps, and premature uterine action, immediately before or during ozone periods and periods of phosphorescence, and at the approach of storms and gales, and the issuing of Admiral Fitzroy's caution telegrams. The speaker described the experi-

ments, extending over a period of ten years, and presented them in tabular forms, which were handed to the meeting. He remarked that the tables showed that the quantity of phosphorous oxidized in the air and in our systems depended upon similar atmospheric condition, viz. : the maximum with the equatorial current and the minimum with the polar current ; but said that it did not appear to be clear with the above disorders, although taking place with the maximum of ozone periods and the issuing of cautioning telegrams, might not depend on the process by which we are brought under the influence of these conditions, rather than on the gales and ozone itself.

In respect to what ensues when ozone is absent from the air, the speaker said there was a good deal of concurrent testimony as to the connection which existed between the absence of ozone and epidemic cholera. He quoted observations made in India at fifteen different stations, which showed that cholera was at its greatest ascendancy when ozone was either absent from the atmosphere or at its minimum ; that the disease showed a most marked diminution when ozone was registered as increasing and when at its maximum the disease ceased altogether if the maximum continued for any length of time. Experiments at Strasbourg in 1854 and 1855, and others by Dr. Moffatt and Mr. Glaisher, pointed in the same direction. The speaker handed in tables showing the atmospheric conditions which prevailed during six months of the cholera epidemic in London, in 1868, and remarked that it was almost impossible to resist the conclusion that there was some connection between epidemic cholera and the absence of ozone.

As to the part that ozone might be capable of playing in preventing or arresting disease, it was necessary to bear in mind its properties. "Soret's experiments," the speaker said, "prove that it is heavier than oxygen ; it is also quite insoluble in water, while its power is intensely increased beyond that of ordinary oxygen, so that air saturated with it destroys dead organic matter with great rapidity ; thick India-rubber tubing is quickly eaten through by it, and all ammoniacal products are speedily decomposed by its action. It is, however, principally in its chemical character that we must look for its good effect in preventing or arresting disease."

Ozone is a most powerful oxidizing disinfectant, and it is so in virtue of possessing the power of resolving and decomposing all animal and vegetable putrescent matter into primitive and innocuous forms. A stream of ozone passed through a mass of black, offensive, and putrescent blood effects a change in it as if by magic; immediately almost as soon as the operation has commenced, all disagreeable odor is removed, it re-assumes its florid red color, and coagulation is restored. The products of putrefaction, as no doubt you are aware, not only favorable to the development of special poison germs, but such products, also, by their continued action, prevent the proper oxidation which should go forward in the various tissues of the body, thus causing a predisposition to the action of any poisoned germs to which the body may be exposed. If ozone be diffused through apartments or elsewhere, it not only disinfects, by removing noxious vapors and poison germs, what their character may be, but being itself in the gaseous form, it is inhaled during respiration, and, passing into the blood through the lungs, it oxidizes the used-up and effete matters produced during assimilation and the renewal of the various tissues, thus effecting in no inconsiderable manner a certain resistance to their pernicious influence if retained within the human body.

There has been much discussion as to what the precise nature of disease germs may be; but be they in the form of bacteria, or of any other form, ozone is potent for their destruction. \* \* \* There are other competing disinfectants, such as iodine, chlorine, bromine, etc., but it has always appeared to me that we have in ozone Nature's own provided disinfectant; and, although I admit that artificial states often require the application of means correspondingly artificial, yet by keeping on Nature's lines, and using the very means she herself makes use of for the maintenance of life, the continuance of health, and for rendering innocuous the products of the functions of life, we are more likely to effectually attain the object in view than by making use of any other means whatever. The always and everywhere present oxygen needs no expensive process for its production, while its conversion into its most active condition, in the shape of ozone, may be arrived at by means so simple and so inexpensive that on these grounds, if on no other, it stands, at least, in my estimation, as the best, the safest,



and the least objectionable of all disinfectants. Lastly, ozone admits of being administered as a remedy for disease, and is, indeed, so administered in the form of ozonized oil, ozonized ether and ozonized water. Here it ranks with remedies containing chlorine, bromine and iodine. Whether in any respect it may, as a remedy, prove to have greater advantages than any, or all, of these agents, must be arrived at by determining whether it will do what the others cannot do. This, of course, can only be clearly and decisively made out by applying to it the test of an inductive philosophy—a rigid exclusion of all that is ineffective.—*The Sanitarian*.

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#### RUTHERFORD ON THE BILIARY SECRETION OF THE DOG WITH REFERENCE TO THE ACTION OF CHOLAGOGUES.

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The first instalment of Dr. Rutherford's Experiments was given to our readers in the *JOURNAL* of September, 1878, p. 161. This supplemental paper is summarized by the *London Medical Record* as follows :

Dr. Rutherford assisted by M. Vignal and Dr. W. J. Dodds, has presented to the Scientific Grants Committee of the British Medical Association a series of papers detailing his elaborate researches upon this subject. The first of the third series of these papers is published, *in extenso*, in the *British Medical Journal*, December, 1878, and the concluding paper, February, 1879. It is not intended to give our readers anything approaching to an abstract of these papers, but merely to make a few remarks that may serve to draw attention to them, as they ought to be read by all. Although the experiments prove that a large number of drugs stimulate the liver to secrete more bile, it cannot be absolutely shown how or why they do this ; most probably, however, it is due to a direct action of their molecules upon the hepatic cells or their nerves. All the experiments were made to test the influence of the different substances on the bile-secreting mechanism, the method of observation preventing any observation on the action of drugs upon the bile-

expelling mechanism. Every substance hitherto supposed to be a cholagogue has, with the exception of calomel and manganese-sulphate, been shown to have a distinct bile-secreting power. The term cholagogue is necessarily vague, and Dr. Rutherford proposes to give the more definite term of *hepatic stimulant* to those substances which are proved to have the power to increase the secretion of bile. In all the long lists of drugs whose effects were investigated, only one, viz. : acetate of lead, was found to have a directly depressent effect. It was invariably observed, however, that powerful purgation produced a marked indirect depressent effect as regards bile secretion. This is due apparently, either to a drain from the portal blood of bile-forming substances, or to an excessive lowering of the blood-pressure of the liver, or of the system generally, by a large dilatation of intestinal and mesenteric vessels. When, however, a purely intestinal stimulant, as magnesium sulphate, is given, it doubtless depresses the secretion of the bile, not only in the manner just indicated, but also by hurrying out of the intestinal canal substances which would otherwise have been absorbed, and would have assisted in the formation of bile. This depressent action of purely intestinal purgatives will prove a valuable fact in rational therapeutics. Dr. Stewart's observations upon the value of ammonium-chloride in hepatic diseases do not prove that agent to be a cholagogue or hepatic stimulant ; on the contrary, Dr. Rutherford found that the quantity of bile was more or less diminished. The great practical value of the knowledge of the fact that purgatives diminish the secretion of bile deserves to be always borne in mind by the practical physician. Hepatic stimulants should be given before intestinal stimulants, so that the latter may not interfere with the former, but merely move their results. Nothing effects this more surely than two grains of euonymin, a powerful hepatic, but feeble intestinal stimulant, followed by a morning dose of an ordinary saline aperient. The wonderful results, obtained from large doses of ipecacuan in cases of dysentery, are due to the direct power this drug possesses of exciting the hepatic secretion. The various contradictory statements, hitherto made, as regards the action of calomel are harmonized by the results of Dr. Rutherford's experiments. Larger quantities of bile pass after a dose of calomel, due not to hepatic but to intestinal

stimulation. Mercuric chloride was found to be a true hepatic stimulant. By these experiments and observations Dr. Rutherford claims that "by means of a novel and precise method of investigation, we have been the first to place the whole subject of the physiological actions of drugs on the liver upon a sound footing, and thus to lay a real foundation for the rational—this is scientific—treatment of many diseased conditions of this important organ."

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#### STARCKE ON CHLORAL HYDRATE ENEMATA IN AFFECTIONS OF THE STOMACH.

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The author (*Berl. Klin. Woch.*, August, 1878,) had been suffering from chronic catarrh of the stomach, the worst symptom of which was sleeplessness, to such an extent the patient hardly slept one hour out of the twenty-four. His colleagues advised him to try chloral, but as the state of irritation his stomach was in would not allow him to take it *per os*, he resolved to administer it to himself *per rectum*. An aqueous solution of 5 per cent. of chloral was warmed to 35°, and 10 grammes of this solution were injected. A few minutes later on an agreeable sensation of warmth spread over the body, and the patient fell asleep and slept soundly for five hours. The author continued with his treatment for five months, using during this time about 120 grammes of chloral; after the first few doses he improved to a marked extent; his appetite came back, and his meals were no longer followed by headaches and nausea. The author strongly advocates the use of chloral hydrate in the form of enemata in cases of gastric irritation; the point of the syringe must be well oiled, and introduced beyond the sphincter; the fluid ought never to be injected cold, but always warmed to the temperature of the body. The dose given *per rectum* must be smaller than it would be *per os*; fifty centigrammes are sufficient. —*London Medical Record*.

## CLINICAL LECTURE ON CANCER OF THE BODY OF THE UTERUS.

By J. MATTHEWS DUNCAN, M. D., LL. D.,

Physician-Accoucheur and Lecturer on Midwifery to the Hospital.

To-day, the chief subject of my lecture is cancer of the body of the uterus, a disease forming part of a great class of diseases—cancer of the female genital organ and their neighborhood—in regard to which a great deal has yet to be made out. The preëminently glandular organ called the neck of the womb is the most frequent seat of cancer in the female genital organs, but this preëminence is very much exaggerated. This arises from the fact that, as cancers in these parts go on, the neck of the womb becomes involved, and then the case—diagnosed as most cases of cancer are, in a late stage—is put down as a case of cancer of the neck of the womb, whereas really nothing is known as to where it originated. Lately, in “Martha,” we have had thirty-nine cases of cancer in the interior pelvic region, and of these nineteen, or about one-half, have been put down as cases of cancer of the neck of the womb. But even with regard to these nineteen we have not invariably been certain that the disease ought to be so classified. We were sure that in each of these cases there was cancer of the neck of the womb, but whether the disease commenced there (and it is from the position of the commencement we would name such a disease) we could not tell. Besides nineteen cases of cancer of the cervix, we have had five cases which have been entered as cancer of the vagina, we have had four cases entered as cancer of the body of the uterus, we have had one case of cancer of the rectum, and we have had ten cases which have been classed either as cases of pelvic cancer or as cases whose origin was not only unascertained, but unguessable. In a former lecture in this course I described to you a case of cancer commencing in the sacrum, osteo-sarcoma. Cancer may commence in any part, and before I come to the proper subject of the lecture I shall say a few words about an interesting case, an example of disease which probably began in the rectum, but, as you will see, now affects the uterus as well.

E. W., aged thirty-five, was admitted March 10. She has been twelve years married and has had four children, the last three years

ago; and she has not been in good health since that birth. The catamenia have been regular till six months ago; since then she has almost constantly lost some blood, and there has been at times a yellow discharge. Complains of pain in the lower part of back, and in both iliac regions, especially the left. Passes urine generally with fæces. The last are passed twenty times, or oftener, daily, and with severe tenesmic pain, and with griping in left iliac region. The disturbance by her bowels is very annoying during the night. The sister of "Martha" estimates the quantity of moulded fæces that as passed in a day as a full ordinary amount or rather more. Examination of the abdomen finds nothing abnormal except a distinct doughy feeling in the flanks and lower belly, evidently produced by accumulated retained fæces. The whole upper part of the pelvic excavation, as digitally examined per vaginam, is a hard mass, with deep fissures diverging from what is taken to be the situation of the cervix uteri, which cannot itself be identified precisely. This hard mass is only slightly displaceable upwards and downwards. The discharge is thin, blood-stained, and not fetid. The rectum, as per vaginam, presents a hard rounded mass, as if it contained a scybalum of the size of a hen's egg. The finger passed per anum, after permeating a pouch about one inch and a half in diameter, reaches a tight stricture in the seat of the egg-like swelling. It admits only the tip of the finger, and is situated in the midst of extensive fixed hardness.

This case presents an example to you of an accident which is rare in the diseases of women, except in cases of cancer. It is a curious fact that an ovarian tumor, a pregnancy, scarcely ever cause retention of fæces. When you examine some cases, as for instance two women with fibroids at present in "Martha," you would think it was impossible for fæces to get past the hard tumor jammed into the brim of the pelvis; and yet it is the fact that almost never do you see obstruction of the progress of fæces—such as you see here. Besides malignant disease, as in this case, I do not know any other cause of retention of fæces in women that is worth mentioning, except the scybalum causing ball-valve obstruction of the rectum. That is not extremely rare; I have seen it the cause of very great mistakes. In that case a woman passes liquid fæces round the scybalum; and the cases may go on even for years, never passing a

proper motion, the faeces always escaping in a semi-liquid form. That is not the case here. Here the faeces are positively retained, and are not scybalous; there is no feeling of round scybalous masses, but you feel the woman's belly is really stuffed with semi-solid faeces. In this case you will have noticed that we propose to perform an operation for the relief of the patient's sufferings. Her sufferings are intense from tenesmus, accompanied by actual gripping pain of a different kind from the disagreeable feeling of tenesmus. This relief we expect to be able to give her by colotomy. We perform colotomy on this woman because she is suffering a great deal; and because she has, so far as we can judge, the prospect of a considerable span of life yet—I mean a span of life not measured by years, but by a considerable number of months,—and it is surely worth while to let her have the imperfect relief which is afforded by colotomy. But on this I am not going to say anything more to-day.

Before I pass from this subject I wish to point out another very important practical fact, that while retention of faeces is almost solely due to malignant disease, retention of urine (and of this we have illustrated at present in "Martha") is a disease rarely accompanying malignant disease. Retention of urine is common in cases of fibrous tumor of the uterus; it is not common in cases of swellings, however large, produced by malignant disease.

You will notice that when I enumerated cancers of uncertain origin in the pelvis as ten, we called a good many of these pelvic cancer; and I wish to point out what is extremely illustrated in one case in "Martha" at this moment. In that case the whole brim, the whole upper part of the excavation, is a solid mass; and when the case is not one of cancer of the neck of the womb, or rather, when cancer of the womb is not present, you have, if the woman is young, a very difficult diagnosis. Now, what disease is there which is not at all uncommon, which is sometimes chronic, and which makes the whole roof of the pelvis, as in the old woman now in "Martha," like a board? It is chronic perimetritis. Some cases are quite easily diagnosed, but some are extremely difficult to diagnose; and I have often told you that, when you hear of a diagnosis being difficult, that may often be translated as impossible; time alone can enable you to decide in many of these cases whether the

disease is malignant or not. The chief points on which to rely are the age of the woman and the history of the case and the absence of tenderness. Upon these particulars I shall not further enter, only insisting upon the great difficulty that exists in diagnosing pelvic cancer from chronic perimetritis, especially in the case of a young woman. And the difficulty is enhanced by the fact that even in old women perimetritis of all kinds, including perimetric abscess, may complicate the pelvic cancerous disease.

Before I pass from the subject of pelvic cancer I must mention another case accompanied by rather a rare symptom, discharge of feces through the urethra. S. N., aged thirty-six, married, has had two children and six miscarriages. The last child was born fourteen years ago. Was admitted March 8, 1878, complaining of pain in left groin which has lasted for fourteen years, but has been much aggravated the last five months. Micturition is frequent and scanty, and with the urine come occasionally air and feces. The brim of the pelvis is occupied by dense hardness, not tender. On the right side an extension of hardness along the ischial plane and below the cervix, which itself presents no great abnormality. The uterus is fixed in this hardness. Its cavity is of natural length and direction.

This is a case which, if the hardness had the long promontory coming down, along the ischial plane, and other characters which are easily seen, but very difficult to describe verbally, would have been extremely difficult to diagnose from chronic perimetritis, because the woman was not elderly, and recently child-bearing. The diagnosis was corroborated by the passage of air and feces through her urethra. The passage of feces per urethrum is a very rare occurrence except in cases of malignant disease of the bowel, and especially the upper part of the rectum and the sigmoid flexure. You are not to suppose that the passage of feces through the bladder is always the cause of much suffering, yet you would naturally think so. It generally only causes moderate suffering; in some cases, as in this, no suffering is mentioned at all. The passage of feces through the bladder sometimes occur in connection with peri or para-metric abscess, ending in intestino-vesical fistula. I have several times seen cases of chronic perimetric abscess where the abscess burst into the bowel and also into the bladder. Such cases

are diagnosed by their history. Let me caution you against a supposition which I have more than once found prevalent in the minds of practitioners of otherwise great experience—that the passage of feces through the bladder must of itself be fatal. Nothing of the sort. I have known patients with this infirmity live long lives, and die of other diseases quite unconnected with the passage of feces through the bladder. It is, however, a rare occurrence, and always, on account of the rarity of its connection with anything else, suggests the idea of malignant disease. In the case I have just read, the existence of malignant disease was placed beyond doubt by the circumstances mentioned in the history of the case.

Now I come to a class of cases about which our knowledge is still very imperfect, and which, of late years, is getting more and more isolated, from the general run, from those that would be called of uncertain seat,—cases of cancer of the body of the uterus. This is easily defined. A case is said to be of this kind if you have noticed it sufficiently early and find the body of the uterus affected by the cancer, while the neck of the uterus, so far as it is accessible, is healthy. It is a disease, the rarity of which is exaggerated. Among the thirty-nine cases that I have mentioned, at least four were cases of malignant disease of the body of the uterus. This disease occurs in a variety of forms. I show you, here, first, a magnificent specimen, an extremely rare one, of a uterus presenting diffuse, non-deforming, cancerous hypertrophy of the body of the uterus, the neck remaining, so far as the eye unaided, and the finger, can make out, quite healthy—a rare form of the disease.

The patient, an aged woman, began to suffer pain and think herself ill only about three months before she died. Her complaints were occasional attack of pain in the hypogastrium, and occasional losses of blood per vaginam. She looked healthy for her years. Three weeks before her death she was admitted into the hospital under my care. A mobile, hard tumor, of the size of a foetal head, was felt projecting through the brim of the pelvis into the hypogastrium. It was rounded and not tender. She was seized with ordinary acute suppurative peritonitis, and sank in a few days. Cancerous nodules were found in the lungs and liver. The uterus weighed four pounds and a half, measured eight inches in length, and six inches and a half in breadth. Its cavity, from os tinea to



fundus, measured six inches. The walls of the body were about an inch thick. Examined by a competent histologist, the structure was declared to be that of hard cancer. Its section resembled that of a scirrhus mamma. The lining membrane of the body was thick and villous, only in some parts destroyed. There was cancerous degeneration of the ovaries; and a similar state of some limited parts of the vagina was discovered after death. The cervix, although healthy to appearance and to digital examination, was discovered by the microscope to be the subject of cancerous degeneration. This case was diagnosed as a case of fibrous tumor of the uterus. If you look into books you will see it justly remarked that one of the points of distinction is that in a case of cancer the womb is fixed, and so it is generally; in this case the womb was quite mobile. Here, also, another usual symptom was absent—there was no fetid discharge. There was bleeding, that is also a symptom of uterine fibroid. In this case the cavity of the uterus was considerably lengthened, and so it often is in a uterine fibroid. In this case there were fits of pain, and these are not uncommon in a uterine fibroid. You are led to suspect that a case is malignant—and at a first visit it is only suspicion—by regarding the history of the case, the age of the woman (and I may remark that the age of the woman is in cases of cancer of the body of the uterus, greater than in cases of cancer of the neck), the presence of an ascitic fluid in the abdomen, and the induration and fixation which sometimes can be made out of neighboring parts, especially of glands. I have done enough to show you how very difficult diagnosis is in a case of this kind.

I have spoken of elongation of the cavity of the uterus, and it is necessary to inculcate special care in making this out in catheterizing the uterus, as it is often called. In all cases of cancer of the uterus is this care demanded, for then the uterus may be easily transfixd or perforated by the probe, and this is not the case with an ordinary or inflamed uterus. Besides, the transfixion involves little or no danger in ordinary cases. I have known it frequently done, in the same case even, without any evil result. Yet it is always a misadventure to be shunned. The peritoneal wound does not gape or bleed in such cases. It is otherwise in examples of cancer of the body of the uterus, and I have seen the fresh specimen

in a case where this gaping wound by the sound proved fatal within a few hours after its production.

Now a few words on the mode of death. A woman with a uterine fibroid is not very rarely affected with chronic peritonitis of various kinds, sometimes causing a collection of peritoneal fluid to occur around it; but this is very much more common in a case of malignant disease of the body of the uterus. In the present case you have another form of peritonitis exemplifying one of the modes of death in cases of cancer that is not very frequently described. Acute peritonitis of all kinds and chronic peritonitis are common with uterine cancer—local peritonitis, general peritonitis, and (the worst of all kinds) the acute suppurative peritonitis, which killed this woman in three days.

Besides peritonitis there are many other forms of death in cancer. It is only a specious concealment of ignorance that leads us to speak, as we often do in cases of cancer, of patients dying from exhaustion. I am very doubtful of that. No patient dies of exhaustion. You may say, "If a patient dies from bleeding, does she not die from exhaustion?" Very well; but that is dying from bleeding—that is not undefined exhaustion. In the same way you find it often stated that patients die of pain. I never saw any body die of pain, and I do not believe it occurs. So cases of cancer are said to end in death by exhaustion, as a man is said to die of old age. The truth, barely stated, is that you do not know of what he died. Now, the chief causes of death in cancer is peritonitis, urinaemia, septicæmia, pyæmia, and complications from diseases of veins or important viscera.

The second form of cancer of the body of the uterus to which I will direct your attention is the nodular—a disease which makes the uterus resemble not a single uterine fibroid, but a group of uterine fibroids; the nodules being different masses of malignant disease, deforming the uterus, almost certainly in this form of the disease fixing the uterus, almost certainly projecting into its interior, frequently bursting through and giving rise to bleeding and other fetid discharge, rarely bursting into the peritoneum and giving rise to fatal peritonitis. This second form of cancer of the uterus is not so rare as the former; and here is a case of it.

M. L., aged 59, has been married for twenty-three years, and has

never been pregnant. Complains of frequent and difficult micturition. Has constant pain in the lower part of the back and in the thighs. Has also a lump in the belly, which she says is increasing in size and has been felt for fifteen months. Her pains are severe at night, and she is rapidly losing flesh. Was in July an out-patient, and then had profuse fetid discharge, which has now ceased. Admitted February 22. A layer of ascitic fluid intervenes between the abdominal wall and the tumor in the hypogastrium. The tumor projects most between the navel and the right spina ilii. It is hard and forms part of a large mass, which, projecting from the pelvis, extends to the left side of the hypogastric region. It is only sensitive, not tender. The cervix uteri; not notably altered, is high up and far back in the pelvis, and forms part of a solid hardness, fixed, and occupying the upper part of the pelvic excavation, and easily identified with the tumor felt in the hypogastrium. The bladder is not tender, but contracted, measuring three inches from orifice of urethra to fundus.

This example was easy of diagnosis only because the woman was fifty-nine years of age, at which time you do not get fibrous tumors growing rapidly with much pain as in this woman. There was, for this reason, no difficulty in diagnosing this case. There might have been great difficulty had she been a younger woman, and had we seen the case earlier. Then we should probably have had to watch it for a considerable time, for months, in order to satisfy ourselves as to its nature; but in an old woman, to have a tumor growing rapidly, fixing the uterus, pain always aggravated at night, ascitic fluid in the belly, forms a combination of clear indications.

I come now to other forms of cancer of the body of the womb, cancer of the interior of the body of the womb. I have just mentioned to you cases of ordinary (medullary) cancer of the uterus projecting into its cavity. When this happens—and indeed in all cases of cancer of the body of the uterus—you have to keep in view the distinction recently made (but not proved to be well founded) between the fibrous and the epithelial cancers, between sarcoma and epithelial cancer. A sarcoma of the uterus has nearly the same clinical history as ordinary malignant diseases such as I have been describing. Sarcoma is a malignant disease, only its progress seems to be generally a little slower than that of the ordinary;

forms of cancer, and it seems to be in a slight degree more amenable to treatment by removal. But really this distinction of cancers is too recent to have been fully followed out in its practical details.

This great malignant disease of the cavity of the body of the uterus is adenoma, a malignant glandular growth of the mucous membrane. Cases of this kind are not common. The growth bleeds, it distends the cavity of the uterus, fills it up, passes through the cervix, grows into the vagina; and I have seen a case where this malignant adenoma filled the vagina, and before the young woman's death, protruded at the orifice of the vulva, the whole mass being composed of soft adenomatous tissue. In "Martha" we have had a case probably of this kind. It was sent in as an ordinary polypus, but on examining it, superficially even, it was observed to be very soft and fragile. The stalk went right through the cervix into the body of the uterus, and it was made out at the time of operation to be a case of polypus of the body of the uterus, not a fibrous polypus nor a mere mucous outgrowth or vegetation. On microscopical examination it was found to have all the structure of an adenoma. Dr. S. West found in it not only the uterine glands hypertrophied, and constituting the greater part of its bulk, but he also found in the centre of the tumor some muscular tissue; and a like observation has been made in some ordinary mucous polypi. Of this adenoma we have had no example except the polypus I have been describing.

The last malignant disease of the body of the uterus I have to mention is one affecting its cavity, namely, ulceration. The ulceration seems often to follow a previous condition of villosity. The villosity is destroyed, and ulceration takes its place; or ulceration is itself the commencement. This ulceration affects, like all malignant diseases, chiefly the old; and it has, in the vast majority of cases, the history of a malignant ulceration. But some recent investigations throw doubt upon the exact nature of the disease, although they do not remove the malignant character from its ordinary clinical history. I am convinced that, speaking merely clinically, this disease in old women may be cured, if it is attended to early, by cantherization by solution of nitrate of silver of the inner surface of the body of the uterus. I have cured several cases of

this kind where there was copious discharge which was fetid, and copious bleeding; and in some of which I have felt the seat of the disease with my finger, quite easily distinguished from the healthy surface of the uterus. This feeling the seat of the disease has only been done after dilating the neck of the womb by tangle tent. In such cases, of course, the disease is not—as yet, at least—malignant; and I shall say no more of them. In the more severe cases you may try the same treatment; but when they get into this class they are irremediable. The treatment may check the discharge, and produce great temporary improvement of health. The patients die as in cases of ordinary cancer, sometimes with great suffering, and sometimes with little or none; and after death, examination, as I have just said, leaves considerable doubt as to the cancerous character of the disease. In several cases that I have examined lately there was no disease found except the ulceration of the interior of the uterus and that not of distinctly cancerous character. In one which occurred in “Martha,” there was found no evidence of real cancerous disease. In that case the lumbar glands were somewhat enlarged; but in other two cases even this evidence of extension was absent.

Ulceration of the cavity of the body of the uterus is characterized by great pain in some cases, moderate pain in others, and in still others no pain at all. There are bleedings which are sometimes slight and sometimes severe. The discharge is always immensely copious, not always fetid, and may be purulent or ichorous. The uterus enlarges, and, instead of having little more than a potential cavity, may come to have a cavity as large as would contain an orange. The ulceration extends deep into the tissue of the womb and destroys it; it comes to affect the interior of the cervix, leaving the infra-vaginal portion untouched. It sometimes goes on to perforate the peritoneum, and in this way it may prove rapidly fatal; but I have seen, in one case lately, the perforation met by adhesions, so that there was a peritoneal cavity or abscess connected by a fistula with the interior of the uterus. These peritoneal cavities get filled, of course, with the same filthy discharge which fills the interior of the uterus. The disease is easy of diagnosis. If you think proper you may go the length of dilating the cervix, so as to pass your finger in to feel the interior, and you may dilate

the cervix for purposes of treatment—to wash out the interior of the uterus, and to cauterize it, if you think proper, with nitrate of silver or tincture of iodine. In all the cases which I have seen the disease has run a more or less rapid course, ending in death.—*Medical Times and Gazette.*

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### FAVRE ON CONGENITAL DALTONISM.

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M. Favre opposes the theory of Thomas Young, and which was adopted by Helmholtz, that the false appreciation of colors is incurable. He cites in this paper three cases, where by the rational treatment of Daltonism, the subjects were cured. The first case was that of a ship's stoker, aged twenty-one years, who presented the characteristics of grave Daltonism—confusion of red and green, also that of blue and violet. He was exercised four times a week for twenty minutes each time, during March, 1877, and was perfectly cured in May, of the same year. The second case was that of a young child, and the treatment, commenced 5th September, 1855, only terminated 20th March, 1877, after several failures. The third case was that of a man of 30 years, formerly a soldier, who, having been early sensible of the defect in his sight, so well concealed it that, after four years of married life, his wife was unaware of it. This man presented, when he was examined, 6th December, 1876, erroneous impressions of all the colors excepting yellow, which he yet sometimes hesitated to recognize. Practised during a certain time, he gradually, but very slowly, came to distinguish the colors clearly, and in May, 1878, he successfully underwent the tests to which he was subjected. Observations made upon children of both sexes in asylums and infant schools, confirm the very great importance of practicing upon colors in order to develop the chromatic sense.—*The London Medical Record.*

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Dr. Louis Elsberg, 614 Fifth Avenue, N. Y., will feel under great obligation to the readers of the JOURNAL, for anything they have written on the Throat or Voice, or for any articles they may deem rare and of importance.

## EDITORIAL.

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### NORTH CAROLINA MEDICAL JOURNAL.

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### A SKETCH OF THE STATE MEDICAL ORGANIZATIONS.

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The quiet process of development which has worked out in North Carolina such good results, seems to be little known to the outside world. In fact we seem in North Carolina to have been contented with working out our own destiny, seeking little advice from the outside world, and looking only to the reforms which we needed for our own well-being.

Not long after the revolutionary war (1799-1800) the old Medical Society of North Carolina was chartered by the Legislature. So far advanced were they in 1801 that prizes were offered for the cultivation of certain drugs formerly imported—among others, rhubarb in quantities not less than five pounds, opium in quantities not less than five pounds, castor oil not less than a specified amount, &c.

At the same meeting a candidate was presented for membership who, “after being examined in open meeting by the Board of Censors was admitted to membership.”

The Society was again revived in 1849, and since, the general movement of the profession in the State, has been steadily forward. In 1859, ten years after the reorganization, the Board of Medical Examiners was created by the Legislature, and it has been in active operation ever since, with the exception of the four years of our civil war.

The provisions of this act are such that "no physician who has commenced the practice of his profession in this State, 'after the 15th of April, 1859, shall practice Medicine or Surgery, or any of the branches thereof, or in any case prescribe for the cure of disease, for fee or reward, nor shall he be entitled to sue for or recover, before any magistrate or court in this State, any medical bill for services rendered.'" (Laws of North Carolina, 1858-59). The profession came to the aid of the Society in this her new departure, and the better class of young men entering the profession were careful to comply with the law. Like all reform laws there have been fluctuations in its career. During the "reconstruction period," dating from 1878, strenuous efforts were made to repeal the law. A well-known politician by the name of Welker, possessing abundant influence to accomplish his designs, actually made a motion to repeal the law, and was only prevented from doing so by the adroit management of Dr. C. Tate Murphy, the most ardent and efficient friend the Medical Society had in the State Senate at that time or at any time.

Singularly enough the estate of Senator Welker was saved from the ravages of a quack by the protection of the very law he attempted to destroy. When Welker died, a large account was presented by a medical man who attended him in his last illness for services; but his claim was refused on the ground that the claimant had no license to practice in the State according to the statute of 1859. Dismayed by the refusal of his bill, he made application to the Board of Examiners for a license, but he was refused upon sufficient testimony, by the Board.

Now another era has opened upon the profession of North Carolina, and as it seems to be little understood, especially outside of the State, we will attempt to explain it.

The new Health Law requires that every county shall have a Board of Health. The local Boards are to be composed of the



members eligible to membership in the State Medical Society, the Mayor of county town, the city surveyor, or where no such officer exists, the county surveyor. To be eligible to membership in this Board, the Doctor must be a licentiate of the Board of Medical Examiners, or have entered the profession anterior to 1859. From this Board one member is to be elected from among the physicians, to be Superintendent of Health. The duties of this officer is to serve the county in the several capacities as physician to the work house, jail, poor house, &c., and make medico-legal post-mortem examinations.

It will be noticed that the license of the Board of Examiners is the test of membership in the State Medical Society as well as the County Society and Board of Health, both county and State, excepting as regards the three members appointed by the Governor. It will be seen by this sketch that in this State we enjoy unusual advantages as a profession, and our capabilities are almost unbounded. The law defines who shall be a legal practitioner, and leaves the decision of the matter to a voluntary society of regular physicians.

A doctor in this State, therefore has no excuse for not being a legal physician, except his own apathy or incompetency. If from apathy, then he may find himself some day the loser in a medical account, the sum total of which may far exceed the small expense incident to obtaining his license. If from incompetency he has no redress, except to collect his fees in advance, and our communities will soon learn to mark these men, and place them in a category that will make any respectable man uncomfortable.

We must not forget though, that obtaining the machinery, accomplishes the work. We are just at the very beginning of our difficulties. Although we have a machine partially of our making, we have not means enough for the central organization.

Without paid clerical aid, no Secretary could begin to do the work contemplated. There are ninety-four to correspond with monthly, and a large mass of material to be collected from these counties to be tabulated and digested. By whom? Of course, by the Secretary of the Board of Health. *The means allowed for this purpose and for postage is two hundred dollars.* Just now this is the important question to solve. Where can be found a medical

man who will give himself earnestly to this work, toiling for two years, in the monotonous drudgery of organization. Very much depends on the selection of this officer; indeed the result of his work for two years, will determine how much additional aid the State will give us in the future.

One part of our machinery is already organized, and the profession may congratulate itself in the alliance of the Agricultural Board with the Board of Health in medico-legal and sanitary investigations. We see how this alliance is going to prove advantageous to both bodies, and we return our thanks for the energetic manner in which the Board of Agriculture have commenced their work.

We are pleased to record that the profession of North Carolina have marked out its own course, and has held so steadily on to it, that a triumphant advantage is within our reach if we will only accept it.

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### ROKITANSKY ON THE TREATMENT OF AGUE BY PILOCARPINE.

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The author's account of the case is published in the *Wiener Med. Jahrbücher*, page 259, 1878. The patient, a young man, aged 22, who was suffering from intermittens quartana, and had been treated during the last twenty-one months for tertiana and quotidian with quinine, had 16 centigrammes of pilocarpine injected hypodermically. The strength of the solution was two per cent., and it was given two hours before the attack, which was much shorter and slighter than it ever had been before. The next attack due was altogether prevented, but in three days very slight prodromi of a new attack appeared about an hour before their usual time. A fresh injection of two centigrammes was then made, the attack passed away, and there were no more symptoms of fever in the next fortnight. The splenic tumor had also become much smaller, and the patient was dismissed as having entirely recovered.—*The London Medical Record*.

## REVIEWS AND BOOK NOTICES.

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A MANUAL OF EXAMINATION OF THE EYES. A course of Lectures delivered at the "Ecole Pratique." By E. LANDOLT, Directeur Adjoint of the Ophthalmological Laboratory at the Sorbonne, Paris. Translated by Swan M. Burnett, M. D., Lecturer on Ophthalmology and Otology in the Medical Department of the University of Georgetown, &c., &c. Philadelphia: D. G. Brinton, 115 South Seventh Street. 1879. Pp. 312. Price \$3.00

This is a beautifully printed volume comprising twenty-four lectures. The subjects treated of are—"Examination of the Exterior of the Eye;" "Movements of the Eye;" illustrated with a diagram of the anatomical relations; "Movements of the Eye and Prisms;" "Muscular Asthenopia—Tenometry;" "Refraction—The Medical System of Optics;" "Astigmatism;" "The Causes of Ametropia;" "Accommodation;" "The Influence of Age on the Amplitude of Accommodation;" "Acuteness of Vision;" "Practical Examples in the Determination of Refraction, Accommodation and Visual Acuteness;" "Examination of the Perception of Colors;" "Indirect Vision and the Visual Field;" "Ophthalmoscopy;" "Examination of the Erect Image;" "The Inverted Image;" "Determination of the Refraction by means of the Ophthalmoscope;" "Examination of the Fundus in Detail;" "Different forms of Ophthalmoscope."

A chart of the Movements of the Eyes, and their Derangements, giving the physiological anatomy of the visual apparatus is added in the appendix. Also a tabular view of Paralysis of the Muscles of the Eye.

While the treatment of diseases of the eye for the most part is wittingly left to the specialist, there are frequently cases arising in general practice, the diagnosis of which must be made out, in order to determine for the patient whether or not the case should be referred to the specialist.

General practitioners look upon the science of ophthalmology as a department of medicine which they can neglect without any detriment to their professional probity, or on the other hand undertake the routine treatment, of snipping the iris for everything, or of using the vaunted collyria of the last generation without ever making a correct diagnosis.

A better acquaintance with this department would retain many a patient who otherwise go to the "great surgeons," never to return to him as a patron.

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REPORT OF THE SUPERINTENDENT OF THE NORTH CAROLINA INSANE ASYLUM. To the Board of Directors. April 1st, 1879. Pp. 47. Raleigh : Observer, State Printer and Binder. 1879.

Of late years the reports of the Superintendent of the Insane Asylum have been largely taken up with arguments for increased facilities, but this year, at least, not without reason.

The last Legislature sent a large committee to examine the affairs of the Asylum, and returned a verdict of excessive expenditure of the people's money in the case of the insane. Not knowing personally the gentlemen who composed this committee, we would not like to pronounce upon their fitness for the task they undertook ; but generally speaking a legislative committee would not be as competent to investigate the management of an insane asylum, as the directors chosen carefully by the Governor presumably, for their fitness for the work.

There is no denying the fact that no public institution can count upon a career of unbroken usefulness if subject to the capricious interference by non-medical men, whose residence is only sixty days in the city where such an institution is located. The criticisms upon Dr. Grissom's management may be well taken, but if so it is due to no deeper insight into the workings of the institution than a Board of Directors serving two term of years.

Dr. Grissom shows in his argument that a larger allowance is made for the sustenance of the criminals in the penitentiary than the asylum ; if this be so and we see no reason to doubt it, the argument is very damaging to the course of the legislative committees.

We are sure that the economical reform was not begun in the right manner. Without there were legal difficulties in the way, the reformation should have begun with the Board of Directors.

The legislative action whether so intended or accepted, was a blow at the managers, whose servant Dr. Grissom is. How they could have stood the onslaught upon their management without tendering their resignation in a body, is only known to them. It

is a pity, in our way of thinking, that a Board of Directors should be interfered with by a legislative committee in any other way than to regularly impeach them, if the circumstances warrant it. Whatever the law may be, when public servants fail to accomplish the duty assigned to them, they should be removed from office. It is blindness to suppose that reformation can be begun in any other way.

We have no defense to make for Dr. Grissom,—he has shown his rhetorical and logical power in his report—we only want to put on record our opinion that the management of the Insane Asylum should be placed beyond the reach of periodical partisan impulses, and that the appointments and displacements from office should be managed with an eye single to the well-being of none but the unfortunate insane.

There was a time in the history of this asylum of ours, so peaceful and so harmonious, that no one ever dreamed that its quiet could be disturbed. Is there not wisdom enough left in the State to bring us back to that former condition of peace and harmony ! If the new régime is a failure, may we not safely try the old with good promise of success ?

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SPERMATORRHEA : Its Causes, Symptoms, Results and Treatment.

By ROBERTS BARTHOLOW, A. M., M. D. Fourth Edition. Revised. New York. Wm. Wood & Co., 27 Great Jones Street. 1879. Pp. 128.

This work has grown by the revision and enlargement of a medical journal article, to attain the proportion of a small volume. The author's design has been "to place the subject on a scientific basis, and to divorce it from charlatanism," and the call for a fourth edition is some indication of the favor in which it is held by the profession.

The empirical sharks have taken so much pains to inflame the minds of young men by exaggerating the frequency of the occurrence of spermatorrhœa, and greatly overrating the evil consequences, that they have fattened upon the fees which have poured in from the excited youth. This may account for the very small number of cases of spermatorrhœa coming under the treatment of physicians. It certainly should serve as a warning to medical

men that have been treating the disease too slightly for a number of years, and a perusal of Dr. Bartholow's will convince them of it.

We notice among many new things that Dr. Bartholow recommends *gelsemium* as being powerful in its action on the sexual organs. The tincture of belladonna and the tincture of gelsemium may be prescribed with advantage together. Thus :

R.

Tinct. gelsemii, ʒ i.

Tinct. belladonnæ, ʒ ij.

M.

S. 15 drops three times a day.

Or,

R.

Tinct. gelsemii, ʒ i.

Tinct. cinicifugæ, ʒ viij.

M.

S. 30 drops to a teaspoonful three times a day.

Or,

R.

Potassii bromidi, ʒ i.

Extr. gelsemii, ʒ ij.

Syr. simpl, ʒ vj.

Aquæ cinnamomi, ʒ iij.

M.

S. A teaspoonful three times a day.

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TABLE FOR FACILITATING THE CHEMICAL AND MICROSCOPICAL EXAMINATION OF URINE AND URINARY DEPOSITS. For Purposes of Medical and Surgical Diagnosis. Compiled by D. STUART LYON, M. D. Member of the Medical Society of North Carolina. 1879.

Many plans have been devised for the examination of urine for clinical purposes, to bring it within the practical grasp of the general practitioner, who is never a chemist. The tabular method is the only one that seems to fulfil the purpose. Beale's table figure the microscopical and other deposits, and Tyson's work give clearly all the clinical directions, but neither of them give such a system-

atic view of the entire field as will enable the busy doctor to reach a speedy and correct conclusion.

Dr. Stuart has done well in choosing Dr. Piffard's sugar test, as it deserves to be more generally known.

The typographical excellence of the chart is conspicuous and reflects credit upon the Charlotte *Observer* press.

We predict a ready sale for a large edition.

We would suggest as a matter of convenience and durability, that the value of the table for ready reference would be greatly increased if mounted on muslin or cardboard.

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#### ANNUAL REPORT OF THE BOARD OF REGENTS OF THE SMITHSONIAN INSTITUTION for the year 1877.

It will no doubt be a useful hint to some of our readers to call their attention to articles of interest in this volume.

The article on "Color-Blindness in its Relation to Accidents by Rail and Sea," is by F. Holmgren, Professor of Physiology at the University of Upsal. The article will prove of interest not only to medical men, but to those having the management of steam travel. This paper is followed by another by the late lamented Prof. Joseph Henry on "Color-Blindness."

Several papers on American Antiquities are of general interest, and the one on the "Climate of New Mexico," by Surgeon McParlin, and "Short Memoirs on Meteorological Subjects," will be sure to be prized by the large number of medical men who are just now paying renewed attention to the subjects treated.

We are indebted to ex-Senator Merrimon for this and other favors, for which he has our thanks.

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#### THOMPSON ON NIGHT COUGH.

Dr. Reginald E. Thompson calls attention in *The Practitioner*, March, 1879, p. 174, to the value of Joy's cigarettes in this troublesome affection, which appears to be often merely an undeveloped and modified form of asthma.—*London Medical Record*.

## AN ACT—SUPPLEMENTAL TO AN ACT CREATING A STATE BOARD OF HEALTH.

*The General Assembly of North Carolina do enact :*

SECTION 1. That the Medical Society of North Carolina shall choose from its active members, by ballot, six members, and the Governor shall appoint three other persons, (one of whom shall be a civil engineer), and these shall constitute the North Carolina Board of Health.

SEC. 2. That the North Carolina Board of Health shall take cognizance of the health interest of the citizens of the State ; shall make sanitary investigation and enquiries in respect to the people ; the causes of diseases dangerous to the public health, especially epidemics ; the sources of mortality ; the effects of locations, employments and conditions upon public health. They shall gather such information upon all these matters for distribution among the people, with the especial purpose of informing them about preventable diseases. They shall be considered the medical advisers of the State, and ore herein specially provided for, and shall advise the government in regard to the location, sanitary construction and management of all public institutions, and shall direct the attention of the State to such sanitary matters as in their judgment affect the industry, prosperity, health and lives of the citizens of the State. The Secretary of the Board shall make annually to the General Assembly, through the Governor, a report of their work for the year.

SEC. 3. The members of the Board of Health as elected by the the State Medical Society, shall be chosen to serve, two for six years, two for four years, two for two years. Those appointed by the Governor shall serve two years. In case of death or resignation the Board will elect new members to fill the unexpired terms.

SEC. 4. The State Board shall have a President and Secretary, who shall be Treasurer, to be elected from the members comprising the Board. The President shall serve two years, and the Secretary and Treasurer six years. The Secretary and Treasurer shall receive ————— a year for his services, but the other members of the Board shall receive no pay, except that while on actual duty at meetings of the Board, or on duty dnring the time special investigations are being pursued, that each member shall receive \$2.00 a day and necessary travelling expenses. These sums shall be paid by the Treasurer on duly authenticated requisitions signed approved by the President of the Board.

SEC. 5. There shall be an auxillary Board of Health in each county in the State. These Boards shall be composed of the physicians eligible to membership in the State Medical Society, the mayor—————of county town, the chairman of County Commissioners, and the city surveyor, where there is such an officer,



otherwise the county surveyor. From this number one physician shall be chosen by ballot to serve two years, with the title of Superintendent of Health. His duties shall be to gather vital statistics upon a plan designated by the State Board of Health. He shall make the medico-legal *post-mortem* examinations for coroner's inquests, and attend prisoners in jails, poor-houses and work-houses. Their reports shall be made regularly as advised by the State Board through their Secretary, and they shall receive and carry out as far as practicable such work as may be directed by the State Board of Health.

SEC. 6. The salary of the county Superintendent of Health is to be paid out of the county treasury, upon requisition and proper voucher, as follows: The salary of the Superintendent of Health shall not exceed the amount paid by the city or county in 1878, for services rendered by the city or county for medical services to sick in jail, work house and poor house, and medical examinations for coroner's inquests.

SEC. 7. The organization of the North Carolina Board of Health shall be completed immediately after the passage of this act, and not later than six months after the passage of the same. The biennial meetings for the election of officers shall, after the meeting of organization, be for the county Boards on the first day of January, and of State Board of Health on the first day of annual meeting of the Medical Society of North Carolina.

SEC. 8. Monthly returns of vital statistics upon a plan to be devised by the State Board of Health, shall be made by the County Superintendents, and a failure to report by the tenth of the month for the preceding month, shall subject the delinquent Superintendent to a fine of one dollar for each day of delinquency.

SEC. 9. Inland quarantine shall be under the control of the county Superintendent of Health, who acting by the advice of the local Board, shall see that diseases to the public health, viz. : small pox, scarlet fever, yellow fever and cholera, shall be properly quarantined or isolated, (at the expense of the city or town in which it occurs). Any violation of the rules promulgated on this subject by the Superintendent of Health shall subject the offender to a fine of twenty-five hundred dollars and imprisonment for not longer than twenty days in the county jail. In case the offender be stricken with disease for which he is quarantinable, he will be subject to the penalty on recovery, without, in the opinion of the Superintendent, it should be remitted. Quarantine of ports shall not be interfered with, but the officers of the local and State Boards shall render all aid in their power to quarantine officers in discharge of their duties upon request of the latter.

SEC. 10. ABATEMENT OF NUISANCES.—Wherever and whenever a nuisance upon premises shall exist, which in the opinion of the county Superintendent of Health is dangerous to the public health, it shall be his duty to notify the parties occupying the premises,

(or the owner of the premises if not occupied), of its existence, its character, and the means of abating it, in writing. Upon this notification the parties shall proceed to abate the nuisance, but failing to do this, shall pay a fine of one dollar a day, dating from twenty-four hours after the notification has been served: *Provided, however,* that if the party notified shall make oath or affirmation before a magistrate of his or her inability to carry out the directions of the Superintendent, it shall be done at the expense of the town or city. In the latter case, the limit of the expense chargeable upon the town or city shall not be more than one hundred dollars in any case.

SEC. 11. VACCINATION.—The Secretary of the State Board of Health shall keep a supply of fresh animal vaccine virus at his command, and he shall issue quantities, in value not to exceed one dollar for one requisition, to county Superintendents in case of a threatened outbreak of small pox. The county Superintendents shall vaccinate and re-vaccinate all applying for such service, free of charge, the virus of such purposes to be furnished by the Secretary of the State Board of Health at market rates. The county Superintendent shall vaccinate every person admitted into a public institution, (jail, work house, poor house, public school), as soon as practicable, without he is satisfied upon examination that the person is already successfully vaccinated. On the appearance of a case of small pox in a neighborhood, all due diligence shall be used by the Superintendent that warning shall be given, and all persons not able to pay, to be vaccinated free of charge by him. The vaccine for this purpose shall be paid for by the corporation in which the Superintendent serves.

SEC. 12. Bulletins of the outbreak of diseases dangerous to the public health shall be issued by the State Board whenever necessary, and such advice freely disseminated to prevent and check the invasion of disease into any part of the State. It shall also be the duty of the Board to inquire into any outbreak of disease, by personal visits or by any method the Board shall direct. The expenses [compensation] of members on each duty shall be five dollars a day, and the necessary travelling expenses.

SEC. 13. Special meetings of the State Board of Health may be called by the President, through the Secretary. The regular annual meetings shall be held at the same time and place of the State Medical Society, at which time the Secretary shall submit his annual report.

SEC. 14. When the county Superintendent of Health shall in the course of his investigations required at coroner's inquest, think it necessary to subserve the ends of justice that a chemical analysis of the *viscera* or fluids of the body be made, he shall carefully pack up and seal the suspected article in a proper receptacle in the presence of a witness and forward it to the chemist of the agricultural station for analysis. (Such analysis shall be made, free

of charge, and be returned to the coroner of the county, such analysis having precedence over other matters of investigation not of a similar character, then in the laboratory of the chemist). Analysis for purposes connected with the hygienic duties of the Superintendent of Health shall in like manner be made by the said chemist, upon requisition signed and approved by the Secretary of the State Board of Health. Such analysis will include soil, drinking water, article of food, air, &c., to be packed for transmission by direction of the chemist of the agricultural station.

SEC. 15. For carrying out the provisions of this act two hundred dollars is hereby annually appropriated, to be paid on requisition signed by the Treasurer and President of the State Board of Health, and the printing and stationery necessary annually for the Board be furnished on requisition upon the State printer. A yearly statement shall be made to the Legislature of all moneys received and expended in pursuance of this act.

SEC. 16. All previous acts conflicting with this are hereby repealed upon the passage of this act.

Ratified the 14th day of March, 1879.

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## COUTISSON ON CANTHARIDINE.

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(*Thèse de Paris*, 1878).—If a mixture consisting of 10 centigrammes of cantharidine, dissolved in 10 grammes of chloroform, is painted on the skin, congestion of the part follows rapidly from a quarter of an hour to half an hour, and according to the epidermis being more or less resistant, blisters form in five or six hours. They increase during six or eight hours or more, then remain stationary for from twenty-four to thirty-six hours, and are finally reabsorbed. The sensation experienced is not so much one of pain as of heat or of burning; this absence of severe pain makes cantharidine one of the least painful vesicants. Another peculiarity of this drug is the tendency to promote the excretion of a great quantity of albumen. Dr. Laboulbène has utilized the irritant properties of cantharidine for removing naevi which disappear under its use, without leaving any traces beyond a slight scar.—*The London Medical Record*.

## CURRENT LITERATURE.

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### YELLOW FEVER—RELATIONS BETWEEN THE ORGANIC AND LIVING CONSTITUENTS OF THE ATMOSPHERE TO THE MICROSCOPICAL AND CHEMICAL CHANGES OF THE BLOOD IN YELLOW FEVER.\*

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Dr. Jones' lectures on the above topics show that he was a close student of disease, notwithstanding heavy drains upon his time, by sickness in his family as well as the extra duties incident to the epidemic.

The first experiment narrated is an examination of the condensation of the yellow fever atmosphere. About 600,000 cubic centimetres of air from sleeping apartments. Deaths had occurred in one of the rooms. The air was subjected to the treatment night and day.

The water from a front room in which no case of the fever had occurred was perfectly transparent, while that from the yellow fever rooms in the same building was turbid, and milky, and let fall a considerable deposit.

"When the water from the yellow fever rooms was subjected to microscopical examination, the following extraneous matters were observed :

"1st. Numerous minute particles, many of which had a vibratory motion. Under a magnifying power of 420 diameters, with Beck's best 1-5th of an inch (a superior glass of excellent defining power) these appeared as minute oval specks. Under 1-18th of an inch (1050 diameters) these particles were resolved into distinct oval cells with a central nucleus, resembling in all respects the spores of delicate fungi.

"2d. Bacteria and delicate thread-like filaments, similar to those observed in the urine and in the blood of yellow fever.

"3d. Revolving minute animalculæ and spores, with active rotary movements.

"4th. Minute particles which could not be resolved into dis-

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\*Notes from advance sheets of Lectures by Prof. Joseph Jones, M. D., of New Orleans, on the Yellow Fever Epidemic in 1878. New Orleans Medical and Surgical Journal, April and May, 1878.

tinct structures by the highest powers. When magnified 1050 diameters, these resembled mere specks of matter, many of which have an active vibratory motion.

“ 5th. Epithelial cells.

“ 6th. Particles of dust evidently inorganic in their nature.

“ 7th. Oil globules. As the patients were well rubbed with olive oil, the oil globules may have in part been derived from this source; but as oil increases in the blood and in certain organs, as the liver, heart and kidneys, during the progress of yellow fever, I was disposed to refer a portion of the oil globules to the diseased bodies. It is possible that oil might be exhaled from the pulmonary surface in small quantities during the progress of the disease.

“ 8th. Hairs and particles of cotton and sheep wool from the clothing and bedding of the patients with numerous adherent spores.

“When the liquid from the yellow fever rooms was evaporated a distinct deposit was left in the watch glasses and upon glass slides, which, in addition to the various organic substances specified, contained numerous stellate and acicular and prismatic crystals and granular particles. The crystals appear to be those of the chloride and carbonate of ammonia. Reaction of water slightly alkaline.

“ The presence of organic matter was still farther shown by the usual chemical tests, as charring by heat, blackening by sulphuric acid, and decoloration of the solution of the per-manganate of potassa.

“ When glass slides were moistened with ice cold water and held so as to receive the breath of yellow fever patients in respiration, the microscopical examination yielded results similar to those recorded above.

“ After the most minute examination of the individual specimens from the different rooms in Mr. Harrison's house, not only immediately after the experiments, but also during various periods, embracing nearly six months, I discovered no forms which could be referred to such microscopical plants as the *Chlorococcum vulgare*, *Protococcus viridis*, *Palmella cruenta*, *Coccochloris brebinonii*, and other confervoideae, or unicellular algae capable of producing chlorophyl. Certain granular cells observed in malarial fever (in the blood), resemble most nearly the resting spore of *Balbochate inter-*

media, and the granular cells of *Palmella cruenta*; but no such cells were observed in the yellow fever atmosphere in the brick house 363 Magazine street. In fact it would be difficult to conceive how the algæ of any description could thrive and multiply in this well paved and dry situation. The forms were referable to those most nearly connected with putrefaction and fermentation, as the *Bacteria* and *Torulæ*, *Penicillius* and *Micrococci* and *Cryptococceæ*. Kützing includes his genera *Cryptococcus*, *Ulvina* and *Sphærotilus*, amongst the families of algæ, but they appear to be the conidia (reproduction cells, stylospores and spermatia) of the mycelia of mildew fungi. The absence of any of the known forms of the algæ in the air of yellow fever collected in this locality, which is as free from any source of swamp malaria as the best drained and paved portions of the city of New Orleans, is important in that this class of plants is thus excluded from the consideration of the questions relating to the origin and causation of yellow fever.

*“Experiments upon Living Animals with the Water, through which the Yellow Fever Atmosphere had been passed, in the Brick Residence, 363 Magazine Street.*

“The liquid obtained by passing the air of the rooms in which the yellow fever patients lay through ice and ice-cold water, was conveyed immediately to my laboratory, and injected subcutaneously into eleven rabbits and into two pigeons. In several of the rabbits the water was injected directly into the blood, through the large vessels of the ears. In the pigeons, the liquid was injected into the pectoral muscle. No rabbit was destroyed by these procedures, although abscesses formed in several places in different animals, in the neighborhood of the points of injection, and in such instances the animals manifested febrile phenomena. A pregnant female rabbit gave birth to four living rabbits several days after the experiment.

“The mother appeared to have no milk, and although we attempted to rear the young ones by artificial means, they perished; the mother, however, survived and is still living and has since given birth to thirteen rabbits, seven at one time and six at another.

“One of the pigeons was killed by a cock in my yard, about ten days after the injection of the ‘yellow fever water’ into the left pectoral muscle. Upon dissection, I found the pectoral muscles on

the left side to be atrophied and in a state of acute fatty degeneration. Upon microscopical examination I found that some of the fibres of the blanket covering the yellow fever patient had been injected along with the water into the pectoral muscle.

“Two views may be taken as to the effects produced upon this bird :

“1st. The fibres of the blanket acted as a local irritant, and induced degeneration and atrophy of the muscular tissue.

“2d. The granular matter and spores of the yellow fever atmosphere induced chemical changes in the muscular structures, which were converted into oil.

“The latter supposition is at least worthy of consideration, as the yellow poison induces rapid fatty degeneration of the heart, liver, and kidneys. It is also worthy of note, in this connection, that the granular matter possessing active motion, as well as the sporules, of the yellow fever atmosphere, are found in greatest abundance adhering to the fibres of cotton and wool condensed in the water.

“The other pigeon was killed at the end of two weeks, and found to be healthy.”

Dr. Jones comments upon two cases of yellow fever, the clinical record of which he gives in full, as follows :

“The two preceding cases clearly illustrate the fact that the febrile heat is not *the disease in yellow fever*, and that its reduction even to the standard of health, does not necessarily secure a favorable result.”

This seems to us a most important clinical fact to bear in mind.

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In one locality 1,800,000 cubic centimetres of air were passed through crushed ice and ice cold water during the day, and also at midnight. The air presented the same elements as already described in the previous examination, with the addition of several colored cells which evidently belonged to the plants resembling the *chlorococcum vulgare*, *protococcus viridis*, and *palmella cruenta*.

The waters obtained from this locality in the way mentioned were injected subcutaneously into living animals with results similar to those already detailed.

Careful drawings were executed of the objects discovered in the “yellow fever water,” and preserved for comparison.

After relating further investigation the following opinion is given, which seems to be a fair resumé of the author's view of the causal relations of the microscopic objects :

“The demonstration by the microscope of numerous living organisms (spores of plants, bacteria and animalculæ), and of minute animal and vegetable particles in the yellow fever atmosphere, and the fact, also, that these minute bodies are found in greatest abundance, in the meshes of the particles of wool and cotton floating in the sick room, is important, as it illustrates the mode in which the contagium of the disease may be propagated and wafted from house to house, and across considerable spaces. In this view it is not necessary to regard the micrococci and cryptococci, bacteria and spores, and minute particles, as the *essential causes* of this *disease*, although in the countries and under the circumstances in which yellow fever prevails, they are *necessary companions of the yellow fever contagion*, and may take part in its elaboration, during certain *putrefactive* changes, and may be the vehicles of its propagation through the atmosphere and of its preservation and concentration in spongy fabrics as cotton and woollen clothing.”

We will not follow Dr. Jones further in his important investigations, but commend his patience and industry, and fairness to the consideration to all engaged or about to engage in similar pursuits.



## EUONYMUS ATROPURPUREUS AS A MILD CATHARTIC.

Fluid extract of this plant given in doses of half a drachm to a drachm, according to the individual susceptibility, acts as a gastric tonic, cholagogue and mild cathartic, and usually within two hours after its administration. Its action is unattended by nausea, griping, or any debilitating influences. The stools resulting indicate presence of bile, and of the feculent secretion of the intestinal follicles. It does not cause like podophyllin, violent vermicular motions of the stomach and bowels, thereby producing nausea, griping and large discharges of gelatinous mucus, through irritant action. It is preëminently the most unobjectionable of cathartics



to overcome habitually loaded abdominal viscera, not, however, in acute exacerbations, but in those of more lingering character. Especially is it of eminent service when, from a variety of causes, hepatic and intestinal torpor are conjoined. In these instances it should not, of course, be given more than once daily, and in amount sufficient to produce not more than one or two evacuations. Continued use does not habituate and blunt the system to its energy, consequently the dose not require to be increased; in fact, as a rule, rather decreased.—Dr. J. R. Black in *Med. and Surg. Reporter*, April 19th, 1879.

[*Eunonymus atropurpureus* is scarce in this State. It goes by the common name of “burning bush,” and differs from the well-known *euonymus Americanus*, “strawberry bush” in being larger in every way, and in the color of the seed-vessels being purple instead of scarlet.—Eds].

*Euonymus Americanus*—or rather the resinoid euonymin has been in great repute with the eclectics for some time. We have borrowed one good friend in the resinoid podophyllin from our irregular friends, and there is no reason why we should not continue to do so.



## GENERAL CONCLUSIONS FROM THE FAMILY EPIDEMIC OF DIPHTHERIA IN THE GRAND DUCAL FAMILY OF HESSE DARMSTADT.

1st. Father and mother ought to be most strongly advised by their medical men not to allow their children to be kissed on the mouth by friends and occasional visitors.

2d. Acute and chronic affections of the mucous membrane of the pharynx and tonsils in children ought to be much more energetically treated than is the rule at present. A *restitutio ad integrum* takes place much more rarely at the time of puberty than is the general belief. A chronically swollen, folded, and uneven mucous membrane is much more prone to receive and retain the germs of infection, of whatever nature they may be, than a healthy one.

3d. A long-continued and repeated exposure to influences of contagion does not give immunity against infection, whilst the fatigues, anxieties, and exertions undergone by physicians, relations, and nurses, render them even more prone to be finally attacked by the disease. The patient is not free from the danger of communicating the disease to other persons until the mucous membrane of the throat is actually restored to the normal state. Caution in every respect ought, therefore, to be exhibited up to the last by physicians and nurses, nor ought other children to be brought back too soon to the infected house.

4th. A very severe form may attack a patient who has become infected by another who has himself suffered by it slightly, and *vice versa*. Great caution is, therefore, necessary in pronouncing any prognosis.

5th. We are not in the possession of any really specific remedy against the disease.

6th. As we cannot vanquish the disease itself, we must combat its manifestations, and the causes which might conduce a false termination. Those are, mainly, local obstructions, high temperatures, with succeeding exhaustion of the vital powers, septic poisoning, and heart failure.

7th. Even if repeated failures shall occur, these principles must be adhered to at present, and the treatment must be a very active one. Few diseases require such energetic and permanent measures as diphtheria.

8th. The precise indication for the moment when tracheotomy should be performed, is given by the recession of the patient's chest-walls. Increased care is called for after this performance. Mechanical clearing of the tube and of the interior of the larynx should alternate with inhalations through the tube, and the tendency to form membranous deposit has died out.

9th. The pharyngeal pseudo-membranes ought never to be removed violently, as a forcible removal only facilitates a more rapid and deeper penetration of the septic poison in the tissues. Nothing but hot steam inhalations, to which antiseptic medicaments may be advantageously added, should be employed in order to produce quicker separation and expulsion of the pseudo-membranes.

10th. The most important general treatment must consist in

maintaining the patient's strength, by the administration of large doses of alcoholic stimulants; nutritious diet; and of iron, whilst the high temperature and the threatening septic infection of the system are combatted by the administration of quinine, salicylic acid, hydrate of soda, &c., &c.—*London Medical Record*.

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### THE PHYSICS OF CONCEPTION.

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Exceedingly important results in relation to the changes which the ovum undergoes before and after impregnation have been recently obtained in Germany by Bisehoff, Van Beneden, and others, who have examined the condition of the egg under these circumstances in the frog, rabbit, and amongst the invertebrata, in certain fresh water leeches and asterids. These results have been shortly described by Dr. Whittaker, who shows that the single cell of which the egg primitively consists may undergo a process of division (segmentation) before it has been brought into contact with the spermatozoa. As soon as a cell is ready for division, its nucleus becomes greatly elongated and spindle-shaped, whilst a number of radiating lines appear on its surface. Each one of these lines shows in its middle a thickened portion composed of five granules which collectively form a plate, the so-called nucleus plate or middle plate. At the same time a clear drop of cell plasma, or fluid, separated from the protoplasm, appears at the end of each thread. These clear drops are the first intimation of the latter nuclei of the two cells—daughter cells—into which the original cell divides. The protoplasm of the cell arranges itself so as to give rise to the appearance of rays, which extend outwards from the bright drops. Two wheels, one from each end of the elongated nuclear plate, are thus formed, being held together by the body of the nuclear plate in the middle of the whole cell. In the meantime, the nuclear plate has commenced to divide across the middle, so that each half includes one of the wheels. The middle of the nuclear plate then gradually disappears, and the two nuclear plates fuse with the bright

protoplasmic drops. At the same time the protoplasm becomes constricted by a furrow which cuts through, and the two cells are complete. In the egg, all the outer covering consists of mucus derived from the genital tracts along which the ovum has passed. Through this mucous layer the spermatozooids pass by their innate mobility to effect impregnation. A disproportionately large number—71 to 80—of spermatozooids surround each ovum, but it is only the individual spermatozoid which accidentally strikes the egg in a line with the radiated arrangement of the mucous covering which first reaches the yolk. At the moment when this penetration is effected; the yolk suddenly projects an elevation towards the head of the spermatozoid. The projection of the yolk surrounds the head of the spermatozoid, and draws it rapidly into the interior of the ovum. The point of entrance is marked by a slight depression, in place of the elevation at the surface of the yolk, and at the same instant a fine, delicate, but very resistant membrane immediately covers the whole surface of the yolk, thereby preventing the penetration of other spermatozooids. The tail of the spermatozoid disappears after it has gained an entry into the yolk, and the head alone remains. About this head clear drops of protoplasm associate themselves to constitute the so-called sperm nucleus. The sperm nucleus then moves towards the egg nucleus, touches it, and fuses with it. The resultant nucleus is, therefore, composed of both male and female elements; it is the essential product of impregnation, and the whole egg represents a new organism resulting from the union of the two ancestral forms. The further process of development of this simple organism consists in the fact that the nucleus undergoes the same metamorphoses as have been already described for the primitive cell. Thence arise from the single cell two, four, eight, sixteen, and so on, until the original cell is subdivided into a mass of small daughter cells, which arrange themselves into three layers to form ultimately the whole complicated organism. In the case of eggs provided with a proper zona pellucida, an opening, the micropyle, exists for the entrance of the spermatozoid. The cell wall is often penetrated also by fine radiating canals, which are closed by prolongations into them of the yolk.—*London Medical Record.*

## FAQUHARSON ON EVIL EFFECTS OF ARNICA.

Dr. Farquharson, in a lecture on the various drugs that cause cutaneous irritations during their administration, or external use, published in the *British Medical Journal*, February, 1879, p. 223, says, "of all the occasional offenders of this sort against comfort, and even life, is arnica, which is commonly resorted to by the ignorant public as a sovereign remedy for sprains. It is pretty generally recognized among medical men, no doubt, that it now and then produces erysipelatous inflammation of the skin; but book-knowledge of this sort makes little impression, in comparison with the observation even of a single case. Professor Hebra is one of the most persistent and strenuous opponents of arnica, and I well remember his vigorous denunciation of its evil effects, from the text of a very acute inflammation of both hands, for which it was responsible, and where the skin was covered with huge blisters, and almost running into gangrene. A year or two ago, I had the opportunity of seeing a typical case, in the person of an old lady to whose sprained arm, a non-professional nurse had applied a weak solution of arnica, contrary to my advice. A true erysipelas started from the point of application, and slowly spread all over the body, causing much irritation, discomfort and depression, and greatly retarding her recovery from what would have been otherwise, a comparatively trifling injury. \* \* \* My advice to you is, to let the drug take its rightful place among those substances of extinct reputation which still continue to sleep peacefully in the pharmacopœia."—*London Medical Record*.

## METHOD OF PROCEDURE IN CASES OF SUSPECTED POISONING.

LABORATORY OF THE N. C. STATE EXPERIMENT STATION,

CHAPEL HILL, April 24th, 1878.

*To the Coroners and County Superintendents of Health of the State of North Carolina:*

I beg to call attention to Section 14 of "An Act Supplemental

to an Act creating a State Board of Health passed by the late Assembly and ratified on March 14th. This Section is as follows :

“ SEC. 14. When the county Superintendent of Health shall in the course of his investigations required at coroner's inquest, think it necessary to subserve the ends of justice that a chemical analysis of the *viscera* or fluids of the body be made, he shall carefully pack up and seal the suspected article in a proper receptacle in the presence of a witness and forward it to the chemist of the agricultural station for analysis. (Such analysis shall be made, free of charge, and be returned to the coroner of the county, such analysis having precedence over other matters of investigation not of a similar character, then in the laboratory of the chemist).” \* \* \*

The Board of Agriculture, recognizing not only the claims of the law but the claims of humanity upon them, have made arrangements by which the analyses in question can be made through the Experiment Station. Knowing that were I compelled to make such analysis in person, it would occasion great delay and serious interference with my work, especially during long absences from my post when testifying at Court, &c., they adopted the following resolution :

“ *Resolved*, That the Chemist of the Board be authorized to employ such additional labor as may be necessary to prosecute the analyses in cases of suspected poisoning, as required by Section 14 of An Act Supplemental to an Act creating a State Board of Health, at an expense for the same of not more than \* \* \* dollars per annum.”

In compliance with the above resolution of the Board, I have secured the coöperation of Prof. A. F. Redd, of the University, who will devote himself to any cases which may arise under the provisions of the law above cited. Prof. Redd has made all the analyses of this character that have been required in the State during the last two years, so far as I am informed. Your attention is called to the following instruction which should be followed as nearly as possible to comply with the law, and to secure an analysis which will stand in Court.

1st. Except in special cases, it will be sufficient to place the stomach, the whole of the liver and spleen and the bladder each in a separate, perfectly clean glass jar, with tightly fitting glass top (a fruit jar serves well). Care should be taken that none of the contents of the stomach or bladder escape. No disinfectant or preservative should be added in any case.

2d. Seal each jar thoroughly and label distinctly with the name of its contents.

3d. Secure, if possible, any vomit or urine voided immediately before death, and also any liquids, powders or other substances which are suspected of having caused death, or any vials or other receptacles which may have contained the poison, sealing each as before.

4th. Let these jars be delivered at the Station by some one, properly authorized, in person. Do not send by express. The person bringing the jars should never allow them (or the receptacle in which they may be packed), to get out of his sight, unless to go under a lock, to which the carrier holds the key. The messenger will bring the jars to the Experiment Station and deliver them to me, or to Prof. Redd in my presence.

The expenses of these analyses will be defrayed by the Department of Agriculture, but the pay of Prof. Redd in attendance upon Court will still be regulated by the laws specially providing for the remuneration of witnesses and experts.

Respectfully,

ALBERT R. LEDOUX,

Chemist to the Department of Agriculture.

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## AMERICAN MEDICAL ASSOCIATION.

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### THIRTIETH ANNUAL MEETING IN ATLANTA, GA.

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The thirtieth annual meeting of the American Medical Association was opened at the Opera House at 11 o'clock yesterday, in the presence of a fine assembly of members, a large number of visiting doctors and a goodly attendance of ladies and gentlemen who witnessed the proceedings with deep interest.

At the stroke of eleven from the city clock, the President, Dr. Theophilus Parvin, of Indianapolis, called the meeting to order.

Dr. W. B. Atkinson, of Philadelphia, was in his seat with his stenographer and assistants by his side.

The exercises were opened with prayer by Rev. Dr. Gwinn, Pastor of the First Baptist Church, of Atlanta. After the prayer, the President announced that Dr. J. P. Logan, of Atlanta, would, on behalf of the Committee of Local Arrangements, deliver an address of welcome. Dr. Logan was received with applause.

At the conclusion of the address the announcement of the list of registration of members by the Committee on Arrangements was made. The following list of members was read by the Secretary.

#### PENNSYLVANIA.

A. M. Pollock, Pittsburg; J. C. Jones, Lackawana; James Ross, Clarion; R. J. Dunglison, R. A. Cleiman, F. Woodbury, Philadelphia; S. Buttermore, Cornettville; James King, Alleghany City; W. B. Atkinson, Philadelphia; H. Isaac Jones, Scranton; S. D. Gross, A. Fricke, Philadelphia; Silas M. Blenham, Pittsburg; John K. Lineaweaver, Columbia; John V. Shoemaker, A. H. Smith, Philadelphia; L. M. Shillito, Alleghany City.

#### ALABAMA.

S. M. Hogan, Union Springs; R. L. Butt, Midway; P. D. Baker, Eufala; James Marshall, Troy; James J. Winn, Clayton; J. P. Furmiss, Selma; C. H. Franklin, Union Springs; E. H. C. Bailey, Demopolis; W. A. Crossley, Troy.

#### MICHIGAN.

E. S. Dunster, Ann Arbor; Wm. Brodie, Detroit; H. C. Wyman, Blissfield; Thomas N. Reynolds, Detroit; J. H. Jerome, Saginaw City; G. K. Johnson, Grand Rapids; A. M. Bucknum, Jackson county; Foster Pratt, Kalamazoo; R. C. Kedzie, Lansing; J. A. Brown, Detroit; A. Borrowman, Detroit; C. H. Lewis, Jackson; L. Cannon, Detroit; T. A. McGraw, Detroit; A. R. Stuart, Hudson; L. Conner, Detroit; Nelson J. Packard, Sturgis; D. O. Farrand, Detroit; James A. Brown, Detroit.

#### MARYLAND.

John S. Lynch, Baltimore; A. L. Gihon, Annapolis; P. H. Bailhache, Baltimore; T. C. Maddux, Baltimore; Thos. B. Evans, Baltimore; E. Lloyd Howard, Baltimore; John Morris, Baltimore; J. A. White, Baltimore.

#### SOUTH CAROLINA.

P. A. White, Anderson C. H.; J. F. Priolean, Charleston; E.



A. Aiken, Winnsboro'; F. P. Porcher, Charleston; T. J. Croft, Aiken; E. N. Talley, Columbia; E. R. Turnipseed, Columbia; John Lynch, Columbia; J. P. Chazal, Charleston; C. H. Ladd, Winnsboro'; J. M. Thompson, Silver Street.

## NORTH CAROLINA.

Eugene Grissam, Raleigh; W. Gleitsmann, Asheville; Frank Duffy, Newbern; Thomas F. Wood, Wilmington.

## NEW JERSEY,

Samuel Lilley, Lambertville; Stephen Pierson, Morristown; J. N. Quimby, Jersey City; D. C. English, New Brunswick.

## WISCONSIN,

J. K. Bartlett, Milwaukee; O. W. Wright, Milwaukee; D. F. Boynton, Mendota; E. L. Griffin, Fondulac; J. T. Reeve, Appleton; S. Marks, Milwaukee; George W. Jenkins, Kilburn City.

## KANSAS.

C. V. Mottram, Lawrence.

## FLORIDA.

George W. Betton, Tallahassee; John P. Wall, Tampa.

## MAINE.

A. J. Fuller, Baltimore; Alonzo Garcelon, Lewiston; T. J. Estabrook, Rockland.

## IOWA.

W. F. Peck, Davenport; Horace B. Ransom, Des Moines; J. C. Hughes, Keokuk; Thos. S. Parr, Indianola.

## MASSACHUSETTS.

Charles F. Folsom, Boston; L. F. Warner, Boston; Jos. H. Warren, H. O. Marey, Cambridge; Azel Ames, Jr., Wakefield.

## MISSISSIPPI.

W. D. Carter, Ripley; John Brownrig, Columbus; John S. Fertherstone, Macon; J. S. Cain, Chickasaw; J. H. Blanks, Meridian; George S. Ellis, Boonesville; E. Paul Sale, Aberdeen; H. O. Gant, Water Valley; A. G. Smythe, Baldwin; W. F. Taylor, Boonesville.

## ILLINOIS.

H. A. Johnson, Chicago; N. S. Davis, Chicago; Wm. A. Byrd, Quincy; W. H. McNary, Martinsville; George W. Nesbitt, Sycamore; J. K. Berkebile, Millstadt; Moses Gwinn, J. H. Rauch, Chicago.

## OHIO.

Starling Loving, Columbus; John A. Murphy, John M. Lacey, A. E. Heighway, E. Williams, Cincinnati; Jonathan Morris, Ironton; W. W. Dawson, Cincinnati; H. B. Ransom, Burlington; A. E. Westbrook, Ashley; Thomas Wood, Cincinnati; W. H. Mussey, Cincinnati.

## NEW YORK.

E. Seguin, New York; S. O. Vanderpoel, Stapleton; Montrose A. Pallen, Stephen Smith, Alfred C. Post, Oliver White, New York; Jesse Reynolds, Pottsdam; Allert Van Deveer, Albany; M. H. Burton, Troy; Henry D. Didama, Syracuse; L. A. Sayre, New York; A. N. Bell, Garden City; Herman Knapp, New York; Thomas F. Rochester, Buffalo; H. R. Ainsworth, Addison; L. D. Bulkley, Walter R. Gillette, New York.

## MISSOURI.

T. B. Lester, A. B. Sloan, Kansas City; Wesley Humphrey, Mexico; Henry H. Mudd, A. J. Sieele, Wm. C. Glasgow, A. P. Lankford, F. W. Wessiller, St. Louis; A. E. Donelan, St. Joseph; B. G. Dysart, Paris; J. M. Richmond, St. Joseph.

## ARKANSAS.

P. A. Hooper, Little Rock; R. B. Christian, Fulton; W. B. Welch, Boonsboro'; W. W. McAlpine, Helena; W. B. Lawrence, Baterville; A. R. Horner, Helena; Edward Cross, Little Rock; D. A. Linthicum, Helena; J. J. Jones, Jr., Little Rock; W. H. Hawkins, Rocky Comfort; J. H. Lenow, Little Rock; J. B. Cumming, Forrest City; R. N. Ross, Lonoke; J. A. Dibrell, D. H. Dungan, Little Rock; R. C. Goodwin, Marvell; W. J. Matthews, Forest City; J. M. Lacy, Cincinnati.

## TEXAS.

G. Dowell, Galveston; Joe S. Willis, Waco; H. W. Brown, Waco; J. B. Adair, Cedar Creek.

## LOUISIANA.

S. E. Chaillé, New Orleans ; E. A. Pope, New Orleans ; A. W. DeRouldes, New Orleans ; S. E. Lewis, New Orleans ; S. L. Henry, New Orleans ; J. G. Richardson, New Orleans.

## CONNECTICUT.

C. W. Chamberlain, Hartford ; Chas. W. Page, Hartford.

## MINNESOTA.

John W. Murphy, St. Paul.

## RHODE ISLAND.

Job Kenyon, Providence ; Chas. H. Fisher, Providence.

## GEORGIA.

J. P. Logan, H. V. M. Miller, J. G. Westmoreland, A. R. Alley, W. T. Goldsmith, W. S. Armstrong, Atlanta ; J. W. Bailey, Gainesville ; V. H. Taliaferro, Atlanta ; L. A. Dugas, Jos. A. Eve, Augusta ; S. H. Gray, Forsyth ; J. E. Cook, Culloden ; John M. Johnson, Atlanta ; Geo. M. McDowell, Barnesville ; W. H. Forwood, W. F. Westmoreland, Atlanta ; A. E. Dugas, Augusta ; Hiram Smith, Augusta ; R. J. Bruce, A. P. Taylor, Thomasville ; A. W. Calhoun, Atlanta ; Wm. D. Hoyt, Rome ; J. B. Roberts, Sandersville ; H. F. Scott, George G. Crawford, T. S. Hopkins, E. L. Connelly, Atlanta ; G. F. Cooper, Americus ; Henry F. Campbell, Augusta ; Robert Battey, Rome ; J. F. Banks, Griffin ; Wm. O'Daniel, Ballard's Station ; P. H. Wright, W. F. Holt, Macon ; H. Perdue, Barnesville ; R. M. O'Reiley, Atlanta ; A. S. Campbell, Augusta ; J. S. Todd, Atlanta ; George J. Grimes, Columbus ; W. A. Love, Atlanta ; E. J. Roach, Atlanta.

## DELAWARE.

W. Marshall, Milford ; Charles H. Richards, Georgetown.

## DISTRICT OF COLUMBIA.

J. S. Billings, J. M. Toner, J. J. Woodward, Thomas J. Turner, Washington.

## KENTUCKY.

Dudley S. Reynolds, J. M. Bodine, Louisville ; Irwin Keller, Anchorage ; B. L. Coleman, Lexington ; P. Thompson, Henderson ; E. F. Russell, Elkton ; T. B. Grenley, Ored ; H. M. Skillman, Lexington.

## VIRGINIA.

J. L. Cabell, Charlottesville; S. C. Gleaves, Wytheville; J. E. Chancellor, Charlottesville; J. S. Tipton, Hillsville; H. M. Nash, Norfolk; Alban S. Paynes, Markham; L. B. Edwards, J. McD, Massie, Richmond.

## TENNESSEE.

Duncan Eve, Nashville; D. J. Roberts, Hendersonville; E. M. Wright, Chattanooga; J. J. Harrison, London; J. P. Park, Knoxville; R. M. Mitchell, Memphis; J. A. Draughan, Nashville; John L. Atlee, Athens; W. F. Hape, Frederick Painter, Chattanooga; A. H. Voorhees, Memphis; J. H. VanDeman Chattanooga; Thos. Mences, W. P. Jones, W. T. Briggs, Nashville; W. T. McReynolds, Clarksville; J. D. Plunkett, Nashville; J. M. Boyd, C. Deaderick, A. B. Tadlock, Knoxville; B. B. Lenoir, Lehoir's; H. J. Warmouth, Smyrna; J. J. Pulliam, LaGrange; S. D. Sims, Chattanooga; Thomas Lipscomb, Shelbyville; R. W. Mitchell, Memphis.

## INDIANA.

George B. Walker, Evansville; R. Q. Haggerty, Elkhart; J. S. Gregg, Joseph R. Beck, Fort Wayne; Thomas S. Parr, Indianola; J. C. Smythe, Green Castle; T. Parvin, Indianapolis; J. H. McIntyre, R. Winton, Muncie; D. A. DeForest, Brownsville; S. J. Young, Terra Haute; Lewis Williams, Marion; A. G. Porte, Lebanon; M. Sexton, Rushville; J. H. Helm, Peru; Thomas H. Lane, Lebanon; J. H. McIntyre, J. F. Hibberd, Richmond; J. S. Dodge, Bristol; W. R. McMahon, Huntingburgh; J. R. Weist, Richmond; Benjamin Newland, Bedford; J. H. Davisson, Warsaw; G. W. Fitch, Logansport; C. W. Burket, Warsaw; H. G. Jones, Evansville; S. S. Boyd, Dublin; John E. Link, Terra Haute; Wm. Lomax, Marion; H. D. Reasoner, New Cumberland; J. W. F. Gerrish, Seymour; William M. Holton, New Harmony; M. H. Bonnell, Lebanon; A. M. Owen, Evansville.

Protests against the registration of certain delegates were announced from Arkansas, Indiana, and West Virginia.

On motion of Dr. Davis, of Chicago, the recommendation of the Committee of Arrangements on matter of visiting and permanent members were adopted.

The annual address of the President, Dr. Theophilus Parvin, of Indianapolis, was then delivered. The address was beautiful throughout, and was full of deep thought and analytical philosophy of medical science. Its glowing periods were delivered with a feeling which held the closest attention of all who heard it. It was enthusiastically applauded in many places, and left an impression that will not soon fade. We cannot omit the conclusion of the address which was as follows :

Since we last met together; less than a year ago, hundreds of our profession have fallen victims to the pestilence that walked in darkness and wasted at noon day in so many of the cities of the south. Some of those who thus fell to their efforts to save their fellow-beings from swift death, were in the meridian of their powers and of professional success. Others were in the fair morning, with the promise of long years and the hope of high honors. Can we believe that these heroic men live only for the memory of their friends? From all the martyr-memories of noble men and women in every age, who counted not their lives dear unto them when principle was at stake, or in sublime self-abnegation sacrificed their lives for kindred, for country, for humanity, there comes a solemn protest against denial of life beyond the grave.

Accepting gratefully all the facts of science, let us beware of rejecting everything that may not be capable of mathematical demonstration, and compelling our assent to absolute necessity. There may be truths more important, but less open ; whisperings of hope that are sure promise of fruition. The poet tells of the sea-shell when, its polished lips shaken and applied to your attentive ear :

“ And it remembers the august abodes,  
And murmurs as the ocean murmured there.”

So we may hear the deep but distant murmur of the immortal sea as it beats against the shores of time, ready to bear upon its mighty bosom the children of men from life to life, and the law of continuity be found as true of the spiritual as it is of the material world.

Happy for us, though unlike the Thrainmo, we hold no festivities over the dead, if with something of the glad dream of hope, if not

in the glory of triumph, we can adopt the familiar words of our great American poet :

“ There is no death ! what seems so is transition ;  
 This life of mortal breath  
 Is but a suburb of the life elysium  
 Whose portal we call death.”

Dr. Brodie, of Detroit, moved that the Convention return its thanks to Dr. Parvin for his eloquent address, and that a copy of it be requested for publication. The entire Association rose in answer to this request amid loud applause.

On motion of Dr. Logan, the ex-Presidents of the Association were invited to seats on the stage. In response, Dr. Davis, of Chicago, Dr. Gross, of Philadelphia, Dr. Richardson, of New Orleans, and Dr. Toner, of Washington, came forward and took seats on the stage. Dr. Fuller, of Maine, presided during this stage of proceedings.

Some papers on various medical topics and experiments were offered and referred to appropriate sections.

Dr. Seguin, of New York, presented the report of the Committee on the Metric System. The report briefly sketched the success of the system and offered in conclusion a resolution declaring that the Association adopt the metric system, and that in future all correspondents adopt it, and that druggists and physicians endorse and promote its popular use. The adoption of the report and resolutions was moved.

The motion to postpone the consideration of the report was carried.

An amendment to the Constitution providing for the consolidation of the Sections on Medical Jurisprudence, Chemistry and Psychology and the Department of State Medicine and Public Hygiene was adopted. The Section was placed as number four.

Several inquiries as to the eligibility of members to seats in the Association were referred to the Judiciary Council.

Dr. Keller offered an amendment that the Committee on Nominations be restricted in present members.

Dr. Davis rose to a point of order that the amendments were not in order the first day. The point was ruled well taken and the Convention adjourned to nine and a half o'clock to-day.

## AFTERNOON MEETINGS.

In the afternoon the various Sections of the American Medical Association met in different halls to discuss questions of particular importance to each of the six branches of the science, as it is divided in the economy of the Association. The following are synoptical reports of the proceedings of each of the five Sections. The fourth and fifth were combined, so there were five instead of six Sections :

## SECTION NO. 1.

Practice of Medicine, Materia Medica and Physiology, Dr. Thos. F. Rochester, Buffalo, New York, Chairman ; Dr. W. C. Glasgow, St. Louis, Missouri, Secretary.

The Section was called to order by the Chairman.

The business in order was the reading of a paper whose author was absent ; therefore this paper was postponed.

Dr. Davis, of Chicago, read a paper on Clinical and Meteorological records. The doctor showed a thorough knowledge of his subject. His paper was referred to Committee on Publication.

Dr. J. P. Logan, of Atlanta, presented a paper for Dr. Denison, of Denver, Colorado. Subject, Experience of Consumptives in Colorado, and some of the Aero-Hygienics of Elevation above the Sea, with conclusions.

After the reading of the paper was commenced, it was, on motion of Dr. Davis, of Chicago, postponed until 3 o'clock P. M., Wednesday.

Section adjourned to meet in Opera House at 3 o'clock Wednesday afternoon.

There was quite a small attendance at this Section yesterday afternoon.

The hall will be crowded this afternoon, as there are some important papers that will be presented.

## SECTION NO. 2.

Section 2d. Obstetrics and Diseases of Women and Children—Dr. E. S. Lewis, of New Orleans, Louisiana, Chairman. Owing to the resignation of Dr. Chadwick, the former Secretary, this position was left vacant. Dr. Marey, of Massachusetts, nominated Dr. Robert Battey, of Georgia, and he was unanimously elected. Read-

ing of papers was next in order. Dr. Robert Battey read a paper on Tubo-Ovarian Pregnancy—(case); operation, 5th month—death. Electrolysis of Fibroids, by Dr. E. Cutter, of Massachusetts—Dysmenorrhœa, by Dr. W. H. Byford, of Illinois.

The reading of these two papers were deferred until to-day—the 7th. The regular business being concluded the presentation of voluntary reports were in order. Dr. Dunster, of Michigan, spoke of the operation of perineoraphy, and his views were very favorably received. The gentlemen in this discussion were Dr. M. A. Pallen, of New York; Dr. King, of Pennsylvania; Dr. Albert Smith, of Pennsylvania; Dr. Greenfield Dowell, of Texas; Dr. Taliaferro, of Georgia; Dr. Beverly Cole, of California, and Dr. Theophilus Parvin, of Indiana.

Dr. Pallen, of New York, presented a number of pessaries for the treatment of uterine displacements.

Dr. Henry F. Campbell, of Georgia, presented a modified stem pessary for the treatment of uterine flexions. Dr. Taliaferro participated in the discussion of the stem pessary. Dr. Love wished to participate, but owing to the lateness of the hour proposed to postpone any further discussion until to-day.

Section adjourned until to-day at 3 o'clock.

#### SECTION NO. 3.

Surgery and Anatomy—Dr. Moses Gunn, of Chicago, Illinois, Chairman; Dr. J. R. Weist, of Richmond, Indiana, Secretary.

The chair appointed the following sub-committee: Dr. Briggs, of Nashville, Tenn.; Dr. Dawson, Cincinnati, Ohio; Dr. W. F. Westmoreland, of Georgia.

Reading of papers was next in order.

Dr. A. Post, of New York, read a paper on Deformities of Face and Hands occasioned by cicatricial contraction following a burn, with reports of cases successfully treated. The report was very favorably received and showed the great advancement made in surgery. The following gentlemen participated in discussing the paper: Dr. Quimby, Jersey City, New Jersey; Dr. Brigg, Nashville, Tenn.; Dr. Dawson, Cincinnati, Ohio. A paper was read by Dr. H. O. Marey, of Massachusetts, on Aspiration of Knee-Joint, with cases. The paper received great attention. The following gentlemen discussed it:



Dr. Boyd, of Quincy, Illinois ; Dr. A. C. Post, of New York ; Dr. S. D. Gross, of Philadelphia. Dr. E. B. Turnipseed, of South Carolina, read the following papers : New Surgical Needle, Curved and Spring Clamp at Point ; New Apparatus for Treating Fracture of the Clavicle, with cases ; New Method of Reducing Dislocation of Elbow-Joint, with cases. They were disensed by Dr. Dodge, of Indiana ; Dr. Hughes, of Iowa ; Dr. Gross, of Philadelphia ; Dr. L. A. Sayre, of New York ; Dr. Dawson, of Ohio ; Dr. A. C. Post, of New York ; Drs. Glenn and Briggs, of Nashville, Tenn.

All the papers having been read it was in order for voluntary communications. Dr. C. V. Matham, Lawrence, Kansas, read a paper on a Report of a Case of Chronic Dislocation of Hip Joint. Dr. Dawson, of Ohio, showed some specimens of stones.

Adjourned to meet to-morrow evening at 3 o'clock.

[To be continued.]

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## TO OUR READERS.

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### WARM WEATHER AND ITS EFFECTS.

Many people, especially ladies, complain at this season of the year of a general weakness or debility—the use of Speer's Port Grape Wine prevents this—the Wine is said to have a most wonderful effect in giving strength, vigor, and tone to the whole system—it is extensively used by ladies nursing, or about to nurse infants. This wine is not a manufactured article—no liquor is added to it. It is no patent medicine, or cordial humbug—but is a superior Wine of the Oporto Grape. It is a pure, old, unadulterated Wine, nothing more or less. Mr. Speer has been supplying hospitals with his wine for twelve years past. It is said to be unsurpassed for summer complaints, and for weakly persons. The price is low for so excellent a Wine, and no family need be without it. Salesroom, 34 Warren Street, N. Y.

## COLDEN'S LIEBIG'S LIQUID EXTRACT OF BEEF.

By WILLIAM ALEX. GREENE, M. D., Macon, Ga.

It is impossible to estimate how much is due to improved and skilled Pharmacy of the present day for the increased efficiency of our remedies, especially of that class of remedial agents, known as Nutritive tonics and stimulants. From their action on the digestive organs it would appear that the more nearly Tonic Medicines, approximate to the aliment which would be the most easily digested, and the most decidedly nutritious, the greater the influence they would possess. They should never be of a nature to produce any inordinate excitement, for the reaction or exhaustion that would follow upon the stimulus would be more hurtful than any beneficial influence they could exert. It is a slow, steady and uniform operation that is required; and the greater the delicacy of the constitution for which we are called to prescribe, the more careful must we be in the *quality, quantity*, and mode of operation of our food, tonics and stimulants. Colden's Liebig's Liquid Extract of Beef and Tonic Invigorator is recognized and prescribed by the leading physicians of the North and in the South as just the remedy to fill all these indications. It is composed of the purest Extract of Beef (Liquid), without any fat, bone or sinew, and after Prof. Liebig's process, together with, and in addition to, Iron, the Alkaloids of Cinchona, Gentian, Pure Wine and Aromatics. It is not a Patent or Proprietary Medicine, as all physicians are furnished with formula if desired. There are many Beef Extracts in the market, but none contain the important and essential properties of *this* preparation, which makes it, at the same time, a nutritive tonic, stimulant and alterative. Since the invention of the "Extract of Meat" by Liebig, there has been much discussion, *pro* and *con*, concerning its physiological action and nutritious value. But the practical uses which have been made of the invention speaks in high favor of its great value and importance; neither have we waited in vain for the experimental demonstration that *this* extract is capable of replacing the valuable nutritious parts of meat. Liebig's Extract consists essentially of two kinds of chemical substances, namely: Mineral Salts, mostly of Potash and extractive matters of meat, and that it is essentially promotive in the formation of the blood and tissues, and exercising also an exciting influence upon the activity of the heart. It may not be uninteresting to be informed that this valuable Liquid Beef Preparation was produced at the solicitation of the German authorities just before the late "Franco-Prussian War," and that it proved of immense service during the severe campaigns of that war, being sufficiently strengthening to sustain the soldiers under circumstances when *solid* food could not be obtained, and in cases among the sick and wounded it proved an unspeakable blessing. To bring results of this valuable *liquid*

preparation nearer home, I will state that I have tested its virtues and efficiency in my *private practice* in cases of general *debility* and *depression* of the *vital* organs, when medicine had proven more than useless; also in cases of Dyspepsia and the multitudinous Nervous Afflictions resulting from it, with complete loss of appetite and constipation of the bowels, and particularly when Delicate Females, ever the unfortunate subjects of such troubles—often with infants to nourish. I have found it the best remedy I have ever used in *Chronic Alcoholism*, when the stomach is always irritable and food required to nourish and invigorate the drooping strength and nervous depression, at the same time appeasing the thirst for more alcohol. This preparation of T. Colden's must not be confounded with the ordinary Liquid Extracts of Beef made by druggists generally, the fault of which is, that they are made from meat which has undergone *Chemical Changes* and rank, as Dr. Newman has remarked, only as stimulants. But this preparation submitted to the medical profession is Citrate of Iron, Alkaloids of Cinchona Flava, Extract of Gentian with Extract of Beef (Baron Von Liebig process), flavored with aromatics, and is a *stronger* extract than we ever get in drug stores according to ordinary formula. This is a reliable preparation, and supplies a want as an invigorator and *nutritious food* tonic long desired by the profession. Any information or samples cheerfully furnished by addressing T. Colden, Baltimore, Md., or Branch Depot, Liebig Beef Extract Co., Newburg, N. Y. Green & Flanner, Wilmington, N. C., are the agents.

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#### BOOKS AND PAMPHLETS RECEIVED.

Opium as a Tonic and Alterative, and its Hypodermic Use in the Debility of Amorosis.

Training School for Nurses. No. 1. 1879. Circulars of information of the Bureau of Education. Washington: Government Printing Office. 1879.

Spermatorrhœa: Its Causes, Symptoms, Results, and Treatment. By Roberts Bartholow, A. M., M. D. Fourth Edition. Revised. Wm. Wood & Co., 27 Great Jones Street, New York. 1879.

North Carolina Assembly Sketch-Book. Session of 1879. By J. S. Tomlinson. Raleigh News Steam Book & Job Office. 1879. Pages 152.

Report of the Superintendent of the North Carolina Insane Asylum, to the Board of Directors. April 1st, 1879. Raleigh, N. C. 1879.

Table for Facilitating the Chemical and Microscopical Examination of the Urine and Urinary Deposits for Purposes of Medical and Surgical Diagnosis. Designed for Students and Practitioners of Medicine. Compiled and Arranged by D. Stuart Lyon, M. D. Member of the Medical Society, N. C., etc. 1879.

# To Physicians.

In order to facilitate the introduction of the metric system, as well as to furnish a convenient posological table, we have published a VISITING LIST DOSE BOOK in which the doses are given both in the metric and the apothecaries' weights and measures. It is light and neatly bound in flexible silk covers, so that it may be carried in the visiting list or pocket without inconvenience. This little book renders the use of the metric system easy and attractive even to old practitioners. All physicians interested in the advancement of our science are urged to aid us in placing this little book in the hands of the profession, not only by sending for it themselves but by ordering it for their friends. Sent free on receipt of six cents in postage.

Address,

THE METRIC CLUB, 637 West Adams St., Chicago.

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## NORTH CAROLINA BOARD OF HEALTH.

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The meeting of organization, under the law enacted by the last General Assembly, will take place in Greenboro, on the 20th day of May, 1879. Six of the nine members to compose the new Board are to be elected by the members of the Medical Society of North Carolina, and from the active members of that body. The full text of the new law will be ready for distribution by the day of meeting.

**THOS. F. WOOD, M. D.,**

*Secretary State Board of Health.*

Wilmington, N. C., March 20th.

# NORTH CAROLINA MEDICAL JOURNAL.

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M. J. DeROSSET, M. D.,  
THOMAS F. WOOD, M. D., } Editors.

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Number 6.

Wilmington, June, 1879.

Vol. 3.

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## CORRESPONDENCE.

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### OUR PARIS LETTER.

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*The Disappearance of the Plague—Death of Professor Gubler—  
Changes at Salpêtrière—Improved Pathological Facilities at the  
Morgue—Labordes Studies of Intra-Venous Injection of Milk—  
A New Anæsthetic—Bucquoy's Lectures on the Treatment of  
Pneumonia—M. Féréal on Treatment of Neuralgia of the Fifth  
Pair—Dr. Roberts Bartholow.*

11 RUE NEUVE DES CAPUCINES.

PARIS, April 25th, 1879.

*To the Editors of the North Carolina Medical Journal:*

GENTLEMEN :—My predictions in regard to the *plague* have been promptly verified. The disease has entirely disappeared, quarantine regulations have generally been relaxed : and the public mind has regained its wonted tranquility. As precautionary measures, however, the Sanitary Department of the Volga has determined to maintain the special cordon around the infected district for some

time longer ; to retain the medical staff under its present organization up to the 27th of July ; to enforce a strict supervision of the villages and fisheries within the contaminated area ; and to establish at various convenient points small hospitals and dispensaries with reference to future contingencies.

Of the foreign Medical Commissioners who were sent to the province of Astrakhan to study the disease, nearly all have returned, and are now devoting themselves to the preparation of their reports, which will doubtless prove not less interesting than valuable to the medical world. It is greatly to be regretted that our own government did not send Commissioners likewise : for, in the event of a general European epidemic of this malady, we could not reasonably hope to escape its visitation, and as there are many medical men in the United States whose services in this regard would have reflected honor upon their country and conducted materially to a thorough knowledge of the disease.

This year has been especially fatal to French medical men. *Professor Gubler* is the last member of the profession whose death is announced. About six months since he withdrew from practice and teaching, and sought an asylum near Toulon, hoping that the balmy air of that locality would restore his failing health. He and his many friends were greatly encouraged by the apparent improvement which was thereby effected, and it was confidently believed that he would soon return to his post, in the full possession of his strength, and with many years of usefulness and honor before him.

The intelligence of his death has, therefore, caused great surprise among his colleagues, and confrères, and has added much to the poignancy of their grief. Gubler was only 58 years of age, and as a teacher, author, and practitioner, ranked among the most distinguished of his times. His disease was cancer of the stomach.

*M. Delasiauve*, the distinguished alienist, has resigned his position at Salpêtrière, and *M. Legrand du Saulle* has been appointed to succeed him. It is said that the government was desirous of giving to Dr. Delasiauve some tangible proof of its estimation of his valuable services, but, that, rejecting the proposed honors, he simply asked as a recompense the privilege of inspecting and

directing at his convenience the studies of the little idiot girls in the institution over which he has so long presided.

In a report which M. Brouardel, chief of the Bureau of Legal Medicine, has just made to the Procureur of the Republic, some valuable suggestions are made in regard to the *Morgue*. He proposes to employ cold to maintain a temperature of 0 Cent. in the hall of exposition—as a means of preserving the bodies exposed there for identification; and, also to substitute for the flag stones upon which the exposure is now made, tables enameled with sheet iron so arranged as to secure any desired inclination. He also favors the construction of distinct chambers for microscopical examination, chemical analysis, and physiological experiments, and the organizations of a museum and a library in connection with the establishment. For these improvements he asks an appropriation of a sum of 52,000 francs, and as the nation is rich, and the republic is liberal it is more than probable that his suggestions may be carried out.

An epidemic of *small-pox* has shown itself in the Faubourg St. Antoine and in the densely populated sections of La Roquette, and La Chapelle, which has excited some apprehension in the public mind. Since the beginning of the year, 190 deaths have occurred from this disease—33 of which were reported during the last week. For a number of years Paris has been singularly exempt from visitations of variola: and, as a consequence, a sense of security has developed itself which has led to a neglect of precautionary measures in this regard, and fostered a condition of things which has already favored the eruption of the disease, and may now increase the difficulties of its eradication. With a proper enforcement of the laws in regard to vaccination, the thorough segregation of the infected, and the adoption of a rigid and adequate sanitary system, I think I shall be able to chronicle in my next letter the arrest of the epidemic, if not the entire disappearance of the disease.

The experiments which have been made in New York in relation to the *Intra-venous Injection of Milk* have attracted much attention here, and have elicited no little comment. Dr. Laborde, who has given the subject great attention, has just published the result of his observations, in this connection, upon inferior animals. He made his experiment especially on dogs and frogs, those on the

former being more relied upon because of the higher rank of the animal in the scale of organization ; but still not being regarded as sufficiently conclusive to influence ordinary practice upon human beings. After having abstracted a certain amount of the blood of the animal, he supplied its place with milk, which in many cases answered perfectly well—producing no disturbance of the economy and securing the proper performance of its functions. He, however, discovered one important fact, viz. : that a limit to the quantity injected is very soon reached. Thus, for instance, a dog weighing eleven kilos, cannot support the introduction of more than ninety grammes of milk. Calculating, therefore, by proportion, the maximum quantity which can safely be injected into the system of a man of average weight, is only four hundred and fifty grammes. When these quantities are exceeded, according to this observer death ensues from the formation of small coagula which dam up the small vessels, arrest the circulation and induce death very speedily. I give these statements for what they are worth—as a part of the history of this special mode of medication—without attempting to criticise or to approve them.

The French journals contain an account of the successful employment of Professor Bert's new *anæsthetic*, which consists of nitrous oxide 85 parts, and oxygen 15 parts, under tension. Professor Labbé, the distinguished surgeon of Larboisière, having occasion to remove an ingrowing toe-nail, carried his patient to the “*Erotherapie Establishment*” of Dr. Daupley, and administered the anæsthetic in a chamber, the atmosphere of which had been compressed to 92 centimetres. After the lapse of a few seconds the patient became perfectly insensible, and the operation was performed and the dressing completed, without the slightest manifestation of pain at the time or the development of any unusual symptom afterwards. Under ordinary conditions this mixture of nitrous oxide and oxygen produces no effect upon the economy, while its employment under tension results in the speedy development of an anæsthesia which is profound enough to render surgical operations painless, and of so innocent a character as to preclude the possibility of a dangerous complication.

At the Hospital Cochin, M. Bucquoy has been giving some interesting lectures on the treatment of *pneumonia*. Although he does



not hesitate to recommend the lancet in some cases; his great reliance is upon antimony. In all cases of pneumonia which are attended with intense and decided febrile reaction, without catarrhal or bilious complications, he prescribes *tart. emetic* in decided doses, given every hour, without regard to the vomiting or nausea it may produce. Under this treatment, the respiration becomes freer, the pulse is controlled, the temperature is lowered, the skin grows moist, and the kidneys act freely. So soon as a disposition to tolerance is manifested, he diminishes the quantity of antimony; and, if a tendency to debility appears, he gives immediately, alcohol very liberally. Sometimes, when the temperature is inordinately high and the pulse unduly excited, he associates digitalis with antimony; and in the catarrhal form of the disease he discards the *latter* and relies entirely upon the *former*—giving it in very large doses through successive days. In these cases of pneumonia which present adynamic symptoms, he prescribes alcohol, upon the principle that “a certain amount of force is indispensable to the process of resolution;” but not to the ridiculous excess advocated by Todd and his admirers. By reason of its rapid absorption, its extreme diffusibility, and its specially stimulating action upon the nerve centres, it, more than any other remedy, fulfills the indication which presents itself in this regard, and demands the consideration of the physician. As regards local remedies, he recommends in the *first stage*, liberal use of cups; in the *second stage*, the employment of poultices, sinapisms, the tincture of iodine, &c., and finally—especially when resolution goes on tardily—the application, and reapplication of large blisters upon the affected side.

M. Féréal, of the Hospital Lariboisière, read at a recent meeting of the Academy of Medicine, an interesting paper upon the treatment of *Neuralgia* of the fifth pair, by ammoniated sulphate of copper. In a number of cases of this terrible malady, which had defied all other remedies and which were distinguished by the most aggravated symptoms, prompt and permanent relief followed the administration of the following prescription:

Distilled water, 100 grammes.

Syrup of orange flowers, 30 grammes.

Ammoniated sulph. copper, 0.10 to 0.15 egr.

M. To be taken within twenty-four hours with the food.

In one instance the dose was carried up to 60 centigrammes in twenty-four hours without inconvenience to the patient, save slight gastric pain and some diarrhœa. The ordinary dose, however, is from 10 to 15 centigrammes, which should be regularly administered for fifteen days, even though the pain may have disappeared in the meantime.

Results so striking and attested by such high authority deserve the best consideration of the profession, and should at once be practically tested by all who have to deal with this form of neuralgia. In my own practice five grains of croton chloral with twenty drops of the tincture of yellow jessamine mixed in an ounce of sweetened water, have proved of decided efficacy in the paroxysms of this disease, and I have great confidence in them.

I have read with great pleasure the announcement of the election of Dr. Roberts Bartholow, of Cincinnati, to the Professorship of Materia Medica in the Jefferson Medical College of Philadelphia. As an Alumnus of that institution and one of its warmest friends, I feel specially gratified by this election, since I recognize in it the source of still greater honor and usefulness to my Alma Mater. Upon both sides of the Atlantic, Dr. Bartholow is recognized as one of the leading medical minds of his country; while as a teacher and a clinician he has long shown those qualities and attainments which specially fit their possessor for a leading rôle in some great school, such as that with which his name and reputation are hereafter to be associated.

Very truly and respectfully yours,

EDWARD WARREN. (BEY) M. D., C. M.

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Dr. Murchison of London is dead. "It is with great regret we record the sudden death of Dr. Murchison, who had been twice a victim to scarlet fever, had suffered somewhat severely from aortic disease of the heart for some six or seven years past, a sequel upon the fever. On Wednesday last, after parting with a patient, he stooped to open a lower drawer in his consulting room, and without any immediate premonitory symptom his heart ceased to act, and within a few minutes he was found dead."

## ON THE EMPLOYMENT OF "SUCTION APPARATUS" IN MEDICINE AND SURGERY.

By F. PEYRE PORCHER, M. D., Charleston, S. C.

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Setting aside the utility of the aspirator, the use of which I have had experience in paracentesis of the chest, for the removal of pleuritic effusion, employing it also, once for paracentesis of the pericardial sac, (See *New York Medical Record*, September, 1878), and for the exploration and emptying of a vomica in the lung. I pass on to speak of other forms of "suction tubes."

Having read in a medical periodical of a method of removing dropsical effusions by a large size hypodermic needle, to the free end of which was attached an india rubber tube, I used one of these instruments successfully in removing a considerable amount of fluid from the cellular tissue of the leg in a case of anasarca. In this case the point of the hypodermic needle is inserted into the tissues and the water is thus drained off—none escaping outside of the needle, or wetting the bed. I had often applied the larger trocars of the aspirator to remove dropsical or peritoneal fluids from the abdomen; but there is danger of the point of the instrument wounding the intestine, as the walls of the abdomen collapse when the fluid is gradually drained off. Since then, I engaged Mr. Rheinhard to make for me needles larger than those in the ordinary hypodermic cases; to these are fitted trocars which remain in whatever portion of the body they are inserted—the needles being withdrawn. To the free extremity of the trocar, which is of wood, several feet of  $\frac{1}{8}$  of an inch india rubber tubing is attached.

In cases of dropsy of the extremities, I have, in 24 hours, drained off eight quarts of fluid without injury to the patient. It is all quietly transferred to a basin on the floor. I have also employed them twice for dropsies of the scrotum and twice to remove hydrocele. In the latter instance less pain is caused by the use of such comparatively fine trocars.

Recently I have extended the employment of such instruments; as, for example, using the hypodermic syringe to remove pus from buboes. In three cases of purulent accumulation, two on the leg, and one where a considerable amount had collected in the axilla of a young lady, from a softened scrofulous gland.

In each and all of these instances the success was perfect and there was an entire avoidance of the knife and the tedious suppuration, granulation and healing which are ordinarily required. I shall use such instruments, specially the hypodermic syringe hereafter to give early, painless and ready exit to purulent deposits in the breasts of nursing women and I hope much for this procedure.

It is almost needless to remark that in the case of the young girl who was relieved of the matter which had gathered in the axilla, as soon as the hypodermic needle is passed into the collection, suction is exercised and the body of the instrument becomes filled—the body of the instrument is unscrewed from the needle which remains in the tumor and the matter which has been drawn out is then emptied, and this process is repeated until the sac is emptied.

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#### PREPARATION OF IMITATION KUMYS.

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Fill into a strong champagne bottle, good, fresh, unboiled cow's milk to such a height that after the addition of 30 grammes (1 oz.) of granulated or powdered sugar, and after corking, there would still be left at least an inch of empty space below the cork. Before corking, add a piece of fresh compressed yeast, a teaspoonful of good beer yeast may be taken. The contents of the bottle are well shaken, repeatedly, then the bottles are placed in the cellar, where they are turned up and down a few times during the day. From and after the fifth day the mixture is ready, and may be drunk to about the twentieth day. It is best to prepare about six bottles full at a time, refilling each after it has been emptied and cleaned, so that the treatment, after being begun, may not be interrupted. On opening the bottles, the contents are very apt to foam over, hence the bottle should be opened while being held over a plate. It should never be opened where there may be any furniture or dresses about, which might be soiled by spattering.

A good milk wine or kumys should have a homogeneous appearance, of the consistence of thin cream, should be effervescent when poured out, of an acidulous, agreeably vinous odor and taste, and should not be full of lumps, or taste like butter milk.

On first using kumys it produces loose bowels, but this effect soon passes off.—*Pharm. Zeit.*—*New Remedies.*

## SELECTED PAPERS.

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### ON COLOR-SIGHT AND COLOR-BLINDNESS.\*

By J. R. WOLFE, M. D., F. R. C. S. E.

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*(Concluded from page 304).*

Color-blindness may be either—

- 1st. Total inability to discern colors (Achromotopsy) ;
- 2nd. False vision of colors (Chromato-psendopsis) ; or
- 3rd. Difficult or blunted perception of colors; (Dyschromatopsy).

The first kind is very rare. Professor Wilson records a case of a house-painter, in whom the perception of black and white was all that existed to represent the color-sense.

In all other subjects of chromato-psendopsis there is either an inability to discern a single-color, such as red and green. Blindness to violet and its varieties is less frequent. In my examinations I have only met with one case where neither blue nor violet could be seen in the spectrum. Cases of bluntness of perception, on the other hand, are of comparatively frequent occurrence. It is only right, therefore, that the public should be impressed with the fact, that, taking the *ensemble* of all the varieties, color-blindness is of more common occurrence than is generally supposed. Indeed, when I commenced to investigate the subject, I was astonished to find the number of cases which obtruded themselves, as it were, upon my notice.

When I asked a friend of mine (a solicitor) to introduce me to the railway company to obtain information with regard to railway signals, he informed me that he himself was color-blind. I had met him frequently in town, and in the country on fishing excursions and when collecting heather, without ever suspecting such a defect. On examination, I find his sight normal. Looking into the spectroscope, he sees only blue ; the rest looks like a glare of fire when seen through transparent gauze. He can name black, blue, white, and yellow, but no other color. His eyes get sore when he looks upon a bright-colored object, such as a carpet. Pale green he calls white ; green he can only guess at ; dark green, he cannot

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\*Read before the Glasgow Philosophical Society, March 5, 1879.

say what it is, but if pressed he would say it was black. Here, therefore, is a case of inability to discern both green and red—he is green and red blind. He has a brother who was engaged in a wholesale warehouse and was put into the silk department, where he committed such blunders in regard to colors that he had to leave the trade, and he is now head engineer of an Atlantic line of steamers.

When I asked Dr. Cumming and Dr. Pickering to undertake the examination of the schools, each of these gentlemen mentioned a case of color-blindness among their friends. Dr. Pickering introduced a gentleman, Mr. A., a manufacturing chemist of twenty years' standing. His vision is perfect, and he is never fatigued in reading. He knows that grass is green, having been told so from infancy, otherwise he would take it to be yellow, about which color he never makes any mistake. He takes red berries to be green, but a shade lighter than the green leaf. In the spectroscope he sees blue and orange; he knows that there is something else, but cannot venture upon any name. He has a good ear for music—so acute, indeed, that he can detect the slightest sharpness or flatness of a note. He was the conductor of a choir. Crimson is nothing at all to him—grey is the best term he can give for it; scarlet, orange and salmon color he is not sure about; lemon and yellow he is quite confident about; light and dark green he knows nothing of, and can only say that the one is brighter than the other; light blue and indigo he is certain about; violet and purple are similar to blue and indigo respectively—one is a repetition of the other. Gaslight improves the red, but makes no difference to the other colors.

For chemical tests he has to rely entirely upon other parties. His grand-father and maternal uncle were color-blind.

Dr. Cumming introduced Mr. B., a merchant in town, who is remarkable clever in the appreciation of designs; in the blending of colors he generally succeeds fairly, but sometimes he makes ridiculous mistakes. He calls pale green, Shetland grey; bright green, drab or fawn: dark green, purple. The difference between certain shades of fawn, green and red, is to him no contrast at all, but he seems to know them, in his warehouse, in a kind of catalogue way. The crimson, scarlet, and orange, he thinks to be red, but is not sure: salmon, lemon, and yellow, he calls yellow; light

and dark green you may call drab or anything you like ; he knows all the blues. Therefore he is totally green blind and deficient in red ; for instance a piece of scarlet cloth thrown upon a bright green ground is not readily picked up. His vision with regard to purple is similar to that of the preceding case—i. e., he sees no difference whatever between blue and violet, nor between indigo and purple or ultra-violet, but mere repetitions. He is hypermetropic (H. 14 left, and 10 right) ; hearing of left ear is rather deficient. There is also an eye-history in his family.

The Treasurer of the Philosophical Society introduced to me a gentleman, Mr. D., who is a shawl manufacturer. On examining him I find that he calls pale green, dirty white ; green, yellow, and orange are all to him yellow of varying brightness. He knows scarlet, but dark green is to him the same as red. The perception of blue and violet is similar to that in the two preceding cases. Therefore, he is totally green blind. In the spectrum he sees all the colors except green, which is similar to red, but of a lighter shade, as if some yellow had been mixed with it. Crimson he calls green ; scarlet, red ; orange, light red ; salmon color he considers to be light green ; the vision of orange, yellow and blue, is correct ; ultra-violet has the same appearance as indigo. He is an only son. His mother, who is seventy, has excellent sight, is not near-sighted, and has never required spectacles for reading ; *her brother* was color-blind.

I have entered into details of these four cases, because they are typical, representing the forms of the defect which are usually met with, and because the subjects, being gentlemen of intelligence, were, in addition to the objective tests, able to give accurate account of their objective sensations.

*Cause.*—I have already mentioned that some cases are caused by disease ; but generally it is congenital, an inheritance transmitted from maternal relations. It is most probably caused by the intermarriage of cousins or other near relations. Hence, very likely, why Quakers furnish a large contingent of color-blind. Dr. Wilson records six males in one family—uncles, nephews and consins—who were all markedly color-blind, which defect had descended to them from their maternal uncle. They all belonged to the Society of Friends. One of them, a minister of that body, bought for his

wife a bottle-green dress, and for himself a coat of bright scarlet, instead of the conventional drab of the Society.

When color-blindness is caused by disease it may be cured, but when it is congenital it is incurable.

Seeing that the peculiarity of most color-blind people is to mistake red for green, or to ignore a shade of red altogether, and to take green for yellow, the subject assumes a practical importance in connection with railway-signals, and lights in sailing-vessels, steamers and light houses. The significance of railway-signals is as follows :—At night a red light signifies “danger ;” a green light “caution” or “not sure ;” and a white, “proceed.” In the day-time red semaphores are used. When at a right angle to the post, the signal means “danger ;” at forty-five degrees, “proceed cautiously ;” and when folded in, “road clear.” By the regulations of the Board of Trade, every sailing-vessel must, from sunset to sunrise, carry a green light on the right or starboard side, and a red light on the left or port side ; and steamers must have, in addition, a white light at the mast-head. This last is visible for five miles, and the side lights for two and a half miles distance. The rule for meeting vessels is to keep red to red, and green to green. The colors indicate to the officer on duty the direction in which the ship is proceeding, and the relative position of both vessels. In light-houses there are, generally, revolving and intermitting white lights, sometimes red ones, rarely green.

The practical bearing of this question, therefore, is that red and green being of necessity the very colors used in railways, sailing-vessels, and steamers, as well as in light houses, a color-blind person may be the engineer of a train running a mile a minute, and the passengers’ lives depend upon his clear perception of the difference between a red and a green light. He may mistake the danger signal red for grey or white, or when it appears black he may not see it at all ; and he may take the green for the yellow or safety signal. Or he may be the pilot on a steamer, and cannot say whether the light directly ahead of him is red or green, and hence cannot steer so as to avoid a collision.

It is this aspect of the question to which Wilson directed his attention :—“Struck by the danger which attends the use of colored signals on railways if any of the signal men are color-blind,



and satisfied from published statistics of color-blindness that it must present itself in the army of railway servants spread over Europe and America, I brought this aspect of the subject before the Scottish Society of Arts, and I am happy to say that the publication of my paper has induced the Great Northern Railway Company to require that in future all their officials shall be tested as to their freedom from color-blindness before they are admitted."

It may well be asked, How is it possible for a color-blind engine-driver, for instance, to perform his duty for any length of time without exposing his deficiency? But the explanation given by Holmgren is simple when we remember that a color-blind person may come to distinguish between red, green, and white lanterns or flags, and even learn to call them by their right names, whilst all the time it is not color which he sees: but he differentiates by the degree of intensity of light. The green is to him, as also to the normal eye, the deepest and darkest and still the most brilliant. As to the lanterns, the red-blind always recognizes the red light by its being the darker than the green, and the yellow by its being clearer and more brilliant. The green-blind distinguishes also the red, which he finds more brilliant than the green. In short, the color-blind person supplements his defective vision of colors by all secondary aids. He trains himself to notice differences which escape most other eyes; these differences serve him in lieu of color. That is the reason why daily collisions do not occur on railways and at sea on account of color-blind officials. But if these circumstances lessen the dangers, they do not remove the liability to disaster. When we keep the broad facts before us, that the color-blind man cannot distinguish between red and green, all his interpretation of signals rests upon the intensity of light: he knows light only by its quantity, and has no notion of quality. Now, if it is a matter of calculation and not of perception, it is evident that any objective or suggestive cause may disturb and upset all his calculations. A tarnished signal, an ill-trimmed wick, the coloring matter of the glass, its thickness, or a little moisture, water, or snow adhering to the glass, will render the light less luminous; and a lantern illuminates differently in clear and foggy weather. Subjectively, the nervous apparatus of the eye may, like all other parts of the system, vary in its sensitiveness; the same light is brighter to a healthy eye

in repose than to an eye fatigued and weakened. Every modification of the intensity of light being for the color-blind a change in color, little dependence can be placed upon his recognition of signals. No one would entrust his life to an engine-driver who could only distinguish signals by the difference in the intensity of the light—to whom a feeble light would indicate danger; a medium, caution; and a strong one, safety; and yet these are just the conditions under which every color-blind engineer has to perform his duty. Should he rely upon his neighbor, there is the possibility of his neighbor being either color-blind or blunt of color-perception. Besides, a great many are unconscious of their defect. Professor Holmgren reports that a large number of men, far from being convinced of their defects even after repeated examinations, gave all sorts of excuses for mistakes; they all insisted that they had excellent sight, and had never experienced the slightest difficulty in distinguishing signals, and had never made the slightest mistake. What is required, however, for the safety of the public is a conductor who can pick up colors instantaneously, without measuring degrees of luminosity, or relying upon adventitious aids. The fact is indisputable that railway accidents have occurred from inability to discern the color of signals. Dr. Rumberg has also classified the reports of some marine accidents from 1859 to 1866; they were 2,408 in number. Of these, 1562 were due to want of skill or carelessness of the ship's *personnel* or to accidents impossible to prevent; 215 to errors of the pilot or captain; 537 to want of observation or proper interpretation of the rules of the way; 94 to undetermined causes.

Under the last three heads, in the large number of 846—there is little doubt that some are attributable to color-blindness, especially when we recollect the effect of fog on the color of lights.

*Test.*—From the preceding remarks it will be evident that all examinations based on the naming of colors are no tests at all; for a person may be deficient in his color vocabulary, and yet have an acute perception of color; whilst another may have learned to attach the proper names to certain colors which he does not see, but of which he judges by the brightness of luminosity. Hence, also the reading of Snellen's colored test types and Stilling's red types on green ground, etc., can prove nothing in regard to color-perception.

The test now generally considered the *experimentum crucis* is that originally proposed by Wilson, elaborated by Holmgren. It consists in matching colored skein worsted. You show a certain color, which the person under examination is required to match. It is usual to begin with green and its shades, then go on to yellow, blue, and red.

Dr. Stilling is the only writer who does not think this test quite reliable. I have come to the same conclusion after careful trial. I have found that in some undoubted cases of color-blindness the colors are easily matched. To render this test of any value at all, the colors should be matched when seen at a distance. After having tested a large number in the usual way, I had to abandon it, and resorted to examination in the following manner :—First, the person looked through the spectroscope, and was then asked to pick out from a heap of colored worsteds the exact colors he saw in it ; next, he was asked to match colors held up, one after another, at a distance of six feet from him. I have no hesitation in saying that this test is perfectly reliable. Goethe said, “ You cannot reason for any length of time with an intelligent color-blind man on colors without running the risk of getting crazy : ” but the examination conducted in the manner just indicated is sometimes highly amusing.

#### *Statistics.*

Total number examined . . . . .	2.134.
Color-blind . . . . .	28, or 1.31 per cent.
Blunt of perception . . . . .	143, or 6.70 “
Examined with spectroscope, and at a distance of six feet from the color to be matched . . . . .	398.
Color-blind . . . . .	12, or 3 per cent.

The subjects examined were all boys, for females are generally considered to be rarely deficient in color perception. Whether it is really the case, or whether they are more apt to conceal the defect, is uncertain. We have, however, found in the case of one color-blind boy that his sister is also color-blind.

#### *Comparative Statistics.*

Professor Wilson, Edinburgh . . . . .	5.6 per cent.
Dr. Stilling, Cassels . . . . .	5.0 “
Professor Donders, Utrecht . . . . .	6.6 “

Dr. Magnus, Breslau . . . .	3·27 per cent.
Dr. Cohn, Breslau . . . .	3·6 “
Professor Holmgren, Sweden . .	3·25 “
Dr. Jeffries, Boston . . . .	5·0 “
Dr. Freris, France . . . .	8·18 “
Dr. Favre, Lyons . . . .	9·33 “
Glasgow Commission . . . .	3·0 “

From these statistics\* we are entitled to assume that of all *employés* on railways and at sea 3 per cent. are color-blind, and 6·5 per cent. can perceive colors with difficulty; thus 9·5 per cent. ply their occupations amidst conditions approaching to uncolored signals.

It is remarkable that, whilst Wilson's labors have been productive of good results in nearly all continental countries—in France, Germany, Sweden, Norway, Italy, Austria, yea, even in Russia, where there is a Government ordinance to guard against the admission of color-blind railway *employés* and sailors into the service—no good has accrued so far as this country is concerned. No legislative enactment makes provision against the occurrence of such accidents.

On inquiry at the Caledonian Railway office, I find that every applicant for a situation on that line gets a printed certificate to fill up as to his health, etc. One of the questions is, whether the applicant has good sight and is capable of distinguishing colors. This certificate may be signed by any medical practitioner. This I consider a mere shirking of the responsibility. The companies do not consider themselves the guardians of the public; if the smash comes, they are not the responsible parties—there is the certificate signed by Dr. So-and-so! This may be quite well in a way; but it is not the principle on which life assurance companies conduct their business. They have their own medical referee, who is responsible to the company for every life he recommends.

On the North British system, the duty of examining the applicants is performed by the Locomotive Superintendent. It is conducted, as you may expect, by showing the applicant different col-

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\*The difference in the results obtained by the various writers is easily explained when we bear in mind that neither of them takes cognizance of dyschromatopsy. Some of them take bluntness of perception for color-blindness, whilst others disregard it altogether.

ored cloths and asking him to name them ; he is then examined in gas light, the idea apparently being that that is a more rigid test of the discernment of colors.

After what I have stated above, no criticism is required to show that this is worse than no examination at all, because it tends only to confirm color-blind officials in the conceit that they are quite capable for their duty.

The best provision against disasters from the cause under consideration would be, of course, an Act of Parliament. This is **not** only the most efficacious means, but also the most easily attainable. In the meantime railway companies and shipowners should be made to see that, as guardians of the interests of the shareholders, the shirking of such responsibility does not tend to the promotion of that interest. I have no doubt that if due stress be laid upon the point relating to vision and color-vision, medical practitioners generally will soon acquaint themselves with this subject. But meanwhile it would be the most direct way to have the whole staff of officials properly examined by one competent to conduct the examination ; for it is evident that, to be of any value, it must be conducted by one who understands the whole subject.

In conclusion, I would remark that it would be desirable to have hung up in school diagrams of the spectral colors, and scales of various shades, to accustom the eyes of the young to them ; for just as the ear may be trained to the perception of musical sounds, so a great deal may be done in the way of educating the eye in the appreciation of the finer shades of color, although color-blindness when congenital is incurable.—*Medical Times and Gazette*.

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*The Coroner's Inquests.*—The State Board of Health, we are pleased to announce, will inspect the workings of the present status of the Coroner's inquests, and hope to propose to the next Legislature a substitute for the present expensive and objectionable method. Our present civilization has a long ways outgrown the machinery the State has on the statute books in this particular.

## A SUMMARY OF FERRIER'S LOCALIZATIONS.

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The following useful summary of localizations described by Dr. Ferrier in his Goulstonian Lectures on the Localization of Cerebral Disease, (Smith, Elder & Co., 1878), is given in the *Birmingham Medical Review*, April, 1879. It will probably be found useful and acceptable by a large number of readers.

*Lesions of Frontal Lobes.*—The frontal lobe includes the superior middle and inferior frontal convolutions, the ascending frontal convolutions, and the orbital and internal aspect of the same region, but for pathological and physiological purposes it is necessary to subdivide this, and to describe that part which, in its relation to the skull, is roughly bounded by the coronal suture, as the prefrontal lobe, or anterofrontal region. In the monkey, electrical stimulation of this region causes no motor reaction, and destruction of this region is followed by no paralysis of motion or sensation. There are numerous cases on record all pointing to the same conclusion; most extensive injuries and diseases of these lobes having produced no paralysis of motion or sensation. There is reason to believe that their function is in some way bound up with the higher manifestations of intelligence, their deficiency being frequently associated with idiocy, and their removal in monkeys, leading to impairment of the faculty of attention and intelligent observation.

*Lesions of the Motor Regions.*—The motor area, as determined by experiments on monkeys, includes the bases of the three frontal convolutions, and those convolutions bounding the fissure of Rolando, viz.: the ascending frontal, the ascending parietal convolutions, the postero-parietal lobule, and the internal aspect of the same called the paracentral lobule. General or extensive lesions of this area are followed by paralysis of voluntary motion without affection of sensation on the opposite side of the body. This paralysis is frequently associated with rigidity or convulsive spasms in the paralyzed parts, particularly in the early stage; and if destruction of the cortical substance be complete, the paralysis is of permanent duration, and sooner or later is followed by late rigidity and secondary sclerosis of the motor tracts, traceable down the crus and pyramid, and thence mainly in the opposite side of the cord in the posterior part of the lateral column, a corresponding band of

secondary degeneration frequently existing in the internal aspect of the anterior column on the same side of the lesion. (In an earlier part of his book, p. 11, Dr. Ferrier refers to this incomplete decussation of the motor tracts as explaining the occasional departure from the rule that in cerebral hemiplegia the paralysis is on the opposite side to the lesion. He points out that according to Flechsig there is no normal fixed percentage of crossing and direct fibres, but that these present individual variations from three principal types, (a) total decussation, (b) semi-decussation of one pyramid, (c) semi-decussation of both pyramids, while in rare cases the decussation of the pyramids may entirely fail). But what is true of lesions of the cortical substance holds good equally of the subjacent white matter, which consists, at least in part, of the direct motor fibres passing down from the grey matter.

Partial lesion of the motor area gives rise to hemiplegia, but as the area of anatomically demonstrated lesion is not necessarily co-extensive with the area of functional disturbance, conclusions as to exact localization from a purely clinical point of view are always more or less doubtful. Thus, in one case the lower two-thirds of the ascending parietal convolution, in another the left paracentral lobule, were the seats of the lesion.

*Oculo-motor paralysis*, sometimes occurs independently. Dr. Ferrier has found that in the monkey there is an area at the base of the first frontal, and extending partly into the second frontal convolutions, irritation of which causes elevation of the eyelids, dilatation of the pupils, conjugate deviation of the eyes and turning of the head to the opposite side. There are some cases which indicate the existence of a similar centre in the corresponding part of the human brain, but the facts at present known are not decisive.

*Paralysis of the leg* may exist apart from that of the arm. In the monkey, stimulation of the postero-parietal lobule causes movements of the leg as in walking. There are cases on record in which the lesion has been found in this region, in the upper part of the ascending parietal convolution and in the paracentral lobule. Dr. Ferrier says it is necessary to be cautious in drawing conclusions as to the exact position of the arm and leg centres in man from considerations of mere anatomical homology, but the cases referred to

show a rough agreement between the data of the experiment and the facts of morbid anatomy. Where paralysis of the arm is associated with that of the leg the ascending frontal convolution is also implicated.

*Paralysis of the arm* only has been seen in a case where hæmorrhagic extravasation three millimètres in extent was situated at the upper part of the ascending frontal convolution. But the centre for the hand is placed by experiment in the ascending parietal convolution, which is remarkably confirmed by the examination of the brain, in a case, reported by Dr. Gowers, of congenital absence of the hand.

Paralysis of the arm is frequently associated with paralysis of the face. The lesions causing this affection are all towards the middle or lower third of the ascending convolutions; where experiments in monkeys have localized the facial and manual centres.

*Facial Paralysis* from cortical lesions unassociated with brachial paralysis or aphasia is uncommon, and is always on the right side. It is probably due to a lesion of the lower frontal convolutions near their junction with the ascending frontal.

*Aphasia* is the result of destruction of the orolingual centres which are situated at the lower extremity of the ascending frontal, where it joins the third frontal, as is well known. Aphasia, in the great majority of instances, occurs only when the lesion is on the left side, and it is remarkable that in several at least of the cases in which aphasia has occurred with disease of the right speech centre, the patients have been left-handed.

In reference to the diagnosis of cortical paralysis, Dr. Ferrier remarks that apart from considerations as to the diathetic indications, mode of onset, etc., of the affection there are no features which clearly enable us to distinguish between hemiplegia depending upon general destruction of the motor area of the cortex and hemiplegia due to destructive lesion of the corpus striatum, more especially those involving the anterior two-thirds of the interior capsule. But hemiplegia, complete from the first and permanent, is not the most common type of paralysis depending upon cortical lesion; on the contrary, the affection is often limited or transitory, a hemiplegia passing into a brachial or crural monoplegia, or monoplegia with spasm. Early rigidity is of frequent occurrence, and consciousness



is less frequently lost. As Callendar has pointed out, cortical lesions are more frequently accompanied by localized pain in the head. Irritative lesions of the motor area cause, not paralysis, but spasm, and the seat of the lesion may be approximately determined by the rules as to the localization of destructive lesions, but with more uncertainty, from the obvious difficulty of determining the area of the zone of irritation or the special point in this zone in which the irritation concentrates itself.

Destructive lesions of the posterior third of the internal capsule cause hemi-anæsthesia of the opposite side of the body, a fact now well established. This hemi-anæsthesia is accompanied by a defect or abolition of taste, smell, and hearing, with loss of visual acuity, contraction of the field of vision and color-blindness. If, as was formerly supposed, only the internal fibres of the optic tract decussate, there should be hemiopia of both eyes, and not amblyopia, as is the case. This difficulty is got over by assuming that the fibres which do not decussate in the chiasma do so in the corpora quadrigemina. "It is clear," says Dr. Ferrier, "that the lesion of the internal capsule which produces these effects does so by causing a solution of continuity of the paths of centripetal impressions," and he proceeds to enquire where those centres are to which these impressions are ultimately conveyed. Both experiment and morbid anatomy exclude the occipital lobes. Lesion of these are latent, though the author believes that these lobes are connected with our visceral impressions, animals who have suffered mutilation of these parts refusing to eat. We turn, therefore, to the temporo-parietal region, consisting of the supra-marginal lobule and angular gyrus in the parietal lobe, and all the convolutions of the temporo-sphenoidal to be on its external and internal surfaces. Lesions of this part in the lower animal produce impairment or paralysis of sensation on the opposite side of the body.

*Vision.*—Unilateral destruction of the angular gyrus in the lower animals is followed by temporary blindness in the opposite eye; bilateral destruction by permanent blindness in both eyes.

*Hearing.*—Destruction of the superior temporo-sphenoidal convolution on one side causes impairment of hearing on the opposite side; bilateral destruction causes complete deafness.

*Smell.*—Destruction of the lower extremity of the temporo-

sphenoidal lobes on one side causes loss of smell on the same side, and if invading neighboring regions, causes loss of taste as well; bilateral destruction causes complete loss of taste and smell.

*Common and Muscular Sensation.*—When the region of the hippocampus major and uncinate gyrus was ploughed up in such a manner as to avoid the internal capsule and medullary fibres of the other cortical regions (with the exception of the occipital lobe), tactile sensation was abolished on the opposite side, sight and hearing remaining unimpaired.

These are the results of experiments on animals. At present they are not fully confirmed by pathology, lesions in these regions being usually described as latent, but Dr Ferrier says there is reason to believe that the latency may have been in the observation. In reference to cortical lesions and their effects on hearing, he quotes a case of what Kussmaul has called "word deafness," associated with softening of the first and second temporo-sphenoidal convolutions. In this condition of word deafness the patient may be able to hear but not understand spoken words, though he can read and write. He also quotes a case of word-blindness, an analogous affection of the visual centre, in which the lesion corresponded with the angular gyrus.

With regard to the localization of tactile sensibility, Mr. Jonathan Hutchinson concludes, from his observations on cranial injuries, that contusion of the sphenoidal lobe more particularly causes along with partial motor paralysis, paralysis of tactile sensation on the opposite side of the body.—*London Medical Record*.

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*To Hasten the Action of Quinine.*—Dr. Starke, *Berliner Klin. Wochenschrift* advises that before swallowing powders or pills of quinia, a weak tartaric acid lemonade be taken. This procedure not only accelerates the solution and absorption of the quinia, rendering its physiological action much more prompt, but also obviates that unpleasant gastric irritability so common after the administration of large doses of this drug.—*The Cincinnati Lancet and Clinic*.

MINUTES  
—OF THE—  
TWENTY-SIXTH ANNUAL MEETING  
—OF THE—  
MEDICAL SOCIETY  $\approx$  NORTH CAROLINA.

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FIRST DAY.

GREENSBOROUGH, N. C., May 20th, 1879.

The twenty-sixth annual meeting of the Medical Society of North Carolina convened in Benbow Hall, Greensborough, May 20th, at 11 o'clock, A. M.

The meeting was called to order by the President,

CHARLES DUFFY, JR., M. D.

The meeting was opened with prayer by the Rev. Dr. D. R. Brunton, after which Dr. J. K. Hall, of Greensborough, introduced Col. John A. Gilmer, who delivered the address of welcome.

ADDRESS OF COLONEL GILMER.

*Mr. President and Gentlemen of the Medical Society of North Carolina :*

The pleasing task of speaking in the name of this community, a word of greeting and honest welcome to your distinguished body though committed to unworthy hands, is accepted as an honor and a privilege. The assembling of so many representatives of so venerable and honorable a profession, involving the communion of minds devoted to the sacred pursuits of science and to the alleviation of human ills, is an occasion of real and imposing interest. For upon the results, conclusions and confirmations of deliberations like yours, depend important elements which shall enter into the great work of furthering and establishing the good of mankind. I therefore hail your coming together as the harbinger of further blessings, and tender you assurances of general sympathy and welcome.

The people of North Carolina recognize, accept and appreciate in the results of your labors, and in the development of the noble,

yet still oecnlt science committed to your keeping, evidences of increasing and permanent good, and through their Legislature have given assurance of this faith in the organization and protection of this highly respectable body. And it is a source of no little pride with every true son of the "Old North State" (who marks in any degree the progress of the times) to note the fact that in effort, zeal, attainments, skill, dignity and distinction among her medical men she stands inferior to none and superior to many of her sister States, and the impulse of every patriot is to bid you "God speed" in all your organized and efficient work.

There are few, I trust very few, among the many truly reasoning and thinking people of our quiet old Commonwealth who partake in any measure of the apprehension now occasionally expressed, and sometimes preached, that at the increased knowledge of the natural world to which physicians are attaining is accompanied by a correspondingly decreased belief in the supernatural. With such few, and such views, I assume that this body, as well as myself, has no sympathy nor lot. A profession like yours, which in the complimentary and just language of another, "has almost annihilated distance, baffled pain, multiplied every convenience of life, and covered the civilized world with traces of triumphant skill," is surely too potent an instrumentality in illustrating the glory of God, to be regarded with any such timid apprehensions. The simple yet solemn ceremony by which we have just ushered in the beginning of your labors, have launched your deliberations on the wings of prayer to Him "whom by searching we may not find out," is a recognition by you of the important truth, that the science to which you have consecrated yourselves is the ready handmaid of the religion of the spirit. So, let all good people, all true seekers after light and knowledge, bid you press on in their gigantic strides of discovery which have signally characterized your progress in the present age; and let the timid laggard who accepts "Atheism as the creed of science" be overtaken by the humiliation of being excluded from the feast of the soul, which truth is spreading for us.

Therefore we greet your coming together and accord to you the foremost rank in the pursuit of truth in the natural world, and commend with propriety, I conceive, the Divine injunction "to forsake not the assembling of yourselves together."

Not only, Mr. President, in the triumph and faithful achievements of your study, investigation and experiment, but in the skillful and conscientious application of these beneficent results, do we recognize the claims of your profession to the sympathy of the public. Next to the sacred offices of men of God, no tenderer or more responsible duties and trusts are committed to any class of our fellow citizens than those entrusted to you. And here I beg to congratulate you upon those protective features of your organization by which quackery and unworthy representation, which will obtrude itself into all good institutions, may be exposed and avoided. The edict of Frederick II., King of Naples, published as early as the thirteenth century, requiring a rigid examination of every candidate for admission into the medical profession, and exacting from him, before entering upon the responsible duties of a practitioner, an oath, "to be pure in life, to be submissive to the laws, to attend upon the poor gratuitously, and not to share in the profits of the apothecary," was but an announcement of the lofty, responsible, and almost sacred sphere in which we conceive every true physician should move. In the peculiar features, therefore of trust, confidence, loyalty, benevolence and skill, the interest which attaches to your meeting in solemn convention is exceptional, and adds a zest to the sympathy and good will of the community in which your labors are expended. The public no longer associates with your honorable profession the superstitious Priest, the uncultured barber, and the mysterious alchemist, but seeks among your ranks for the cultivated gentleman, the true philanthropist and the influential citizen. We have much to rejoice over, truly, in the present status of medical science. We are no longer taught, indirectly through the action of calomel and jalap supplemented by the rigid rule that no bystander dare dip so much as the tip of his finger into cold water and cool our parched tongue, that the torment of the Bible is to be administered in this present world through the instrumentality of the doctors. The fevered brow and fluttering heart of the little child are no longer aggravated by the addition of a nauseated stomach unappreciating the coming of the doctor, with the visions of British oil and aloes. The wounded soldier no longer feels his flesh quiver at the approach of the surgeon, under the contemplation of having his already pierced frame made a sieve for boiling

oil. But I withhold further comparisons of the past with the present, lest my remarks degenerate into "the odious." We all certainly bespeak for your deliberations and conclusions the force and dignity of real progress. These assemblies of yours will no longer be regarded as conclaves of mysterious and cabalistic notions. Nor are they to be classed with the boisterous demonstrations of party fealty and so-called statesmanship; but must be honored as quiet, dignified and earnest consultations for the public welfare.

The rule evolved by the venerable Guizot, after a long life study of men, events and nations, that "there is less of combination than of momentary inspiration, derived from circumstances, in the resolutions and conduct of great men," seems to be without application to the medical profession, whose success and glory are the fruits of the closest application and the most laborious study and experiment, and the combination and contribution of each one's discoveries to the establishment of the common fact.

May the goodness of truth ever preside over your deliberations and rule in your researches; may your labors continue to be crowned with success, and evolve, establish and proclaim those hidden secrets of nature, which shall render your profession a light to the suffering and an honor to our nation.

While you remain in our midst and partake of the hospitalities of our little city, which I most respectfully tender to you without stint or grudging, and when you shall have returned to your respective circles of labor and influence, I venture the expression of the hope that the pleasure of your conference may be heightened by memories of a friendly recognition and a generous sympathy.

Dr. Thomas J. Moore, of Charlotte, in behalf of the members of the Society, accepted the hospitalities so generously bestowed, and spoke of the peculiar fitness of the medium through which they had been tendered—the welcome and its manner being worthy the son of a Gilmer who had ever been foremost in all that concerned the interest or reflected the wishes of North Carolina.

The following committees were appointed:

*Credentials*—Dr. Eugene Grissom, Dr. Hugh Kelly and Dr. C. T. Murphy.

*Finance*.—Dr. J. T. Shaffner, Dr. James McKee and Dr. E. H. Hornaday.

The Committee on Credentials retired, and soon after the meeting adjourned until 3 P. M.

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AFTERNOON SESSION.

Society assembled promptly pursuant to adjournment, at 3 P. M.

Dr. Grissom, Chairman of the Committee on Credentials made the following partial report :

*To the Medical Society of North Carolina :*

The Committee on Credentials beg leave to recommend for membership to this Society the following gentlemen; to-wit :

Dr. J. S. McLéan; McLéansville, Guilford County.

“ C. C. Peacock, Wilson, Wilson County.

“ J. W. Smith; Reidsville, Rockingham County.

“ B. A. Cheek, Greensborough, Guilford County.

“ J. C. Ector, Friendship, Guilford County.

Respectfully submitted,

EUGENE GRISSOM,	} Committee.
HUGH KELLY,	
C. TATE MURPHY,	

Dr. Walter C. Murphy offered the followed resolution which was adopted :

*Resolved,* That members of the profession who are present with a desire of becoming members of this Society, but who cannot do so until the Board of Medical Examiners shall have made their report, be invited to participate in the discussions of this body.

Dr. H. O. Hyatt, of Kinston, offered his resignation, by letter.

Dr. Grissom said Dr. H. had done honor to the Society by his conspicuous talents, and hoped he would not press his resignation.

Dr. O'Hagan was sure he expressed the common sentiment of the Society in saying that the step taken by Dr. Hyatt is done without sufficient reason; and hoped that upon consultation with his friends, to withdraw his resignation. The Society could not afford to lose so valuable a member.

A motion to lay on the table the motion to accept the resignation was carried.

Dr. Thomas J. Moore, of Charlotte, in seconding the motion, eulogized Dr. Hyatt's career in the Society, and hoped that the Secretary would be instructed to send a letter of exhortation and assurances of fraternal consideration.

Dr. Hyatt's resignation was laid over until the next meeting.

A letter was received from Dr. L. A. Sayre, accepting his election as honorary member of the Society, was read by the Secretary. Ordered on record.

Dr. E. C. Seguin sent a correspondence from the Metric Board asking the Society to adopt the Metric System.

On motion of Dr. Thomas F. Wood it was referred to a committee of three.

The following committee was appointed :

Drs. Thomas F. Wood, Charles J. O'Hagan and R. L. Payne.

The committee was directed to report the advisability of this change at the next annual meeting of the Society.

The President announced the *Committee on Finance* as follows : Drs. J. F. Shaffner, James McKee and E. H. Hornaday.

The following report was submitted by the Committee :

*To the Medical Society of North Carolina :*

Your Committee on Finance, to whom the books and vouchers of the Treasurer were submitted having carefully examined the same, respectfully report that the duties of the Treasurer have been properly performed, the books accurately and neatly kept. They submit the following statement :

Cash on hand.....	\$203.71
Am't received by dues at Goldsborough, (May, 1878).....	238.00
Subsequent receipt from members.....	62.00

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\$503.71

Expenses.....	275.71
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Printing and Publishing Transactions.....	\$230.00
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Secretary's expenses.....	32.76
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Incidental.....	12.95
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\$275.71-238.00

Advertisement receipts.....	60.00
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Balance in Treasury.....	\$288.00
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In reference to delinquent members we recommend that Sec 3, Art. VIII, of the Constitution be rigidly enforced, and further, to provide against the possibility of future indebtedness under which the Society so long and grievously suffered, we recommend an annual assessment of \$2 per capita.

J. F. SHAFFNER, M. D.,	} Committee.
E. H. HORNADAY, M. D.,	
JAMES MCKEE, M. D.,	

Report adopted.



Dr. O'Hagan spoke upon the adoption of the report, and urged that the suggestion of the Committee be rigidly enforced. Mild measures has not moved members to pay their dues, like the old man in the fable they should be pelted with brick-bats. In this connection he spoke also of the faithful manner in which the Secretary had performed his duty, and moved that the Society offer to the Secretary, Dr. L. J. Picöt, one hundred dollars as an honorarium.

Motion unanimously carried.

Dr. Satchwell on behalf of the Local Committee of Arrangements, announced that the annual address by Dr. W. W. Lane, would be delivered in Benbow Hall on Wednesday evening at 8 P. M.

Dr. Walter Debnam, on behalf of Dr. Jones, Principal of the Greensborough Female College, extended an invitation to visit the College. Accepted, and the hour set at 6 P. M., on Wednesday.

Under the call for written communications, Dr. S. S. Satchwell, of Pender County, appeared and read a paper on *Sanitary Improvement*.

On motion of Dr. Picöt it was referred to Committee on Publication.

Dr. Wood moved that 10½ o'clock Wednesday, the organization of the North Carolina Board of Health be proceeded with, which motion was carried.

In consideration of the fact that the annual essayist, Dr. M. Whitehead would be ready to read his paper on Spondylitis, Dr. Thomas J. Moore moved for a reconsideration which was carried after debate. The hour for the reading of the essay by Dr. Whitehead was the order for 9 o'clock.

Dr. C. T. Murphy then moved that the next order immediately after the essay and the discussion ensuing, be the election of the North Carolina Board of Health, which motion prevailed.

Dr. T. D. Haigh, of Fayetteville, called up his resolution to amend the Constitution, the substance of which was to choose officers of the Society by ballot, and asked to withdraw it. Consented to.

The President then called upon the various Sections for reports.

The Chairman of the Section on Anatomy and Surgery, Dr. Charles J. O'Hagan, stated that his report was not completed and

asked permission to refer it to the Committee on Publication without reading it. Granted.

The Chairman of the Section on Obstetrics and Gynecology being absent it was passed over.

The Chairman of the Section on Practice of Medicine being absent, Dr. Thomas F. Wood made the annual report. As this paper will not be published, the following summary is given :

The first subject taken up was the *Localization of Cerebral Disease*. It was from the pathological standpoint that the physiologist had received his greatest enlightenment, and fortunately for the progress of the work, for the most part, the pathologist was at the same time physiologist.

The doctrines of the localization of the brain have been so recently promulgated that "in\* 1866, Vulpian, when speaking of cerebral localization maintained that nothing could justify the assertion that the various regions of the grey cortical substance of the brain had more influence on one than on any other function."

Dr. Ferrier excited renewed professional interest on these topics by making known his scientific discovery in 1873.

The German physiologist, Hitzig, claims to divide with Ferrier, the development of the theories of localization. Both instituted experiments to define and figure certain portions of the cortical cerebral substance as the sources of motor power : that the exact points were not identical may be seen, by an examination of the writings of the two physiologists.

The experiments of Hitzig and Fritsch and Ferrier, were repeated and their conclusions were confirmed by other observers, and many clinical facts also were contributed in confirmation of the theory of localization, the phenomena of epilepsy being especially adduced as giving support to the new doctrines. But Hitzig was the first who proved by direct experiments that epilepsy could be referred to specific lesions of the cortical brain substance.†

Brown Séquard‡ does not deny the doctrine that the cortical substance has motor influence, but denies the possibility of localizing

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\*Med. Times and Gazette, 1878, p. 747.

†Motor Localization in the Cortical Part of the Brain, 1878.

‡Med. Times and Gazette, 1878, p. 747.

any function whatever either in it or any part of the brain. Every cellular element, according to him, presides over a determinate function; but nevertheless all the cellules destined to the same purpose would not be found united in groups and forming so many centres, but would be disseminated in every part of the encephalon, whereby a lesion may destroy any one part of this great centre, without altering any of its functions.

Dr. Maragliano believes that in man the compensation of a cortical lesion, although extensive, is possible for part of the opposite hemisphere, especially when the left is the injured one; and this substitution is effected generally, if not exclusively, by means of those bundles of direct fibres which go from the sound hemisphere to the same side of the body.\*

In so far as these physiological theories bear upon the diagnosis of disease of the brain, they place the practice of this special department of medicine on an advanced ground.†

In the study which has been devoted to this branch in the past year, its promise for future practical results is very encouraging.

#### VALUE OF THE TENDON-REFLEX.

The value of "*Tendon-Reflex*"‡ which was recently studied by Professors Erb and Westphal, and afterward by Dr. Grainger Stewart, has been growing in professional confidence as a method of diagnosing locomotor ataxia.

Dr. Stewart agrees with Erb and Roger "that in fully developed grey degeneration of the posterior columns of the cord the 'tendon reflex' is lost." It is hardly necessary to explain what is meant by tendon-reflex. By sharply tapping on the ligamentum patellæ, while the foot is dangling down and knee bent, a quick jerking forward of the foot is produced, after a sufficient interval succeeding the tap.

Dr. Allan McLane Hamilton§ reviewing eight cases of absent tendon-reflex says:

"It would seem, therefore, as if the absence of the patellar tendon-reflex were not so valuable a diagnostic sign as it has been

\*Med. Times and Gazette, 1878, p. 748.

†Goulstonian Lectures, 1878.

‡N. C. Med. Journal, Vol. 1, p. 199.

§Boston Med. and Surg. Journal, December, 1878, p. 786.

said to be in locomotor ataxia, but there can be no doubt of the fact that when its absence is coupled with the so-called 'lightning-pains,' plantar anæsthesia, and dimness of vision, there is reason for apprehension."

Under the head of "The Contagiousness of Phthisis" the literature of the subject during the past few years was reviewed, and the reporter seemed to have decided leaning towards the views as expressed by Dr. Edgar Holden and Dr. Bell in the *American Journal of Medical Sciences*, viz. : The question, can septic material be eliminated from the body of a person suffering from necrobiotic changes in the lungs, which floating in the air or transferred by contact, develop the same affection in another person ? To this practical point these two writers have been able to answer in the affirmative.

Dr. Holden epitomizes concisely this opinion, that consumption is communicable in its latter stages by means of soluble excrementitious matter thrown off by the skin and deposited on the bedding and under-clothing, or in any other manner brought into contact with the naked surface of a healthy body ; and that, although in some instances this may be thrown off without development into new disease, it is yet very liable to be so developed, and more liable where the healthy person is by heredity or depression in a favorable state for its reception ; and, finally, that the idea of infection or communication by the atmosphere is not sustained, and rare even if it is possible."

The use of the *Clinical Thermometer* as a means of diagnosis and prognosis, was fortified by the experience of a great many clinicians. Especially the reporter dwelt upon the probable value of the thermometer in localizing diseases by the difference noticed in the temperature of each side.

#### DIPHTHERIA.

The reporter said : "It would be a most curious volume that would contain an indexed enumeration of the remedies which have been vaunted as cures for diphtheria. The wildest jargon of the semi-barbarous age when toads and adders, and animal fluids the most loathsome, were made the ingredients of usual remedies, would be repeated in an intensified degree. Every shade of credulity has been exhibited both by the taker and giver of wonderful charms

to drive away the dreaded pestilence. Panic has seized households so that the mere mention of the word diphtheria was avoided. Physicians of mature judgment have 'lost their heads' and fallen in to the panic, and have 'tried' the pharmacy and therapeutics of the 'newspaper doctors.' But with all this apparent confusion some substantial work has been done."

After reviewing the literature of the germ-theory of the origin of diphtheria, Dr. Wood continued :

"Nothing is more desirable than to discover, isolate and describe the germ, but no investigation is more difficult. It is hard to avoid the suspicion that of the many learned men who speak of fungus spores and fungi, very few of them have sufficient knowledge of these botanical mysteries. For mysteries they are, as one can satisfy himself with an examination of the literature of this seclusive branch of botany. In this country, there are exceedingly few botanists who can speak with authority on the subject of mycological diagnosis; and even the best of them find it necessary to subdivide the study and devote all of their time to it. The careless way that some microscopists use the words 'fungi,' 'fungus spores,' and 'fungoid,' shows not only their lack of knowledge of the coarse botany, but utter ignorance of polymorphism of microscopic fungi and their life history. It is necessary to speak in this somewhat denunciatory way, because very many general practitioners are too prone to catch up the suggestions about a named fungus as the resting place of their pathological theories, and some hygienists are equally prone to administer dangerous or offensive 'germicides' to 'persons and things' upon the pure speculation of some microscopist who passes for scientific because he can mystify with names unknown to him.

"Earnest patient study in this direction is going to reveal something, but the pathologist who would not make and publish blunders about mycological forms, had better borrow the eyes of Cooke and Berkely, and Farlow and Ellis, and Raverel and Peck, and bide their time."

A review of treatment followed, which is too long to warrant an attempt to epitomize it.

Upon the subject of *Hydrophobia* the report was particularly full. The most interesting account of, all though under this head, was the admirable reported case of Dr. T. B. Curtis, of Boston, in which

the influence of curare is most minutely detailed. In this case "*in eight hours and a half three-fourths of a grain* of curare were given, and no effect was visible except slight flushing of the face." Very little matter of an encouraging character as to treatment was elicited.

*The Apyretic Treatment of Fever*, by means of vegetable alkaloids, giving their relative value, was viewed from a personal clinical stand-point. Malarial fevers were especially considered, and the value of cinchona alkaloids shown to have undisputed preëminence.

The property of jaborandi and its alkaloid pilocarpia, to reduce febrile heat was discussed at length, with a decided leaning towards its great value. The reporter had seen defervescence established upon the copious sweating following the use of the drug, and he believed that its fame was yet to be greater than the celebrated secret remedy—Warburg's tincture.

The report concluded with a consideration of the treatment of *Hepatic Abscess*. Confidence was expressed in the treatment by aspiration, as set forth by Drs. J. C. Davis, W. A. Hammond and others during the last two years, and while very few could go so far as the latter writer in considering the mental phenomena as sufficient guarantee of the presence of abscess, to warrant aspiration, the truth would surely be found by sufficient clinical inspection.

This report was the first of the series and was looked forward by the Society with great interest, not only for the intrinsic value of the papers, but as a beginning of more systematic work in the record of the progress of the medical sciences.

Dr. G. G. Smith, Chairman of the Section on Materia Medica and Therapeutics asked for indulgence. Granted.

Dr. G. G. Thomas, Chairman of the Section on Pathology and Microscopy being absent, on motion of Dr. Wood, of Wilmington, his report was referred to the Committee on Publication without reading.

Dr. T. D. Haigh read a paper on "*Rotation of Fœtal Head in the Blades of the Forceps*."

Dr. O'Hagan spoke most feelingly of the long suffering of women in that period in obstetrical art, when everything was left to nature. He paid a most eloquent tribute to the forceps in hastening the delivery of the suffering mother. Dr. Haigh's paper had explained

to him a heretofore unknown phenomenon, one he had witnessed without really being able to arrive at a satisfactory solution of it. He moved the reference of Dr. Haigh's paper to the Committee on Publication.

Adjourned until 9 o'clock, A. M.

SECOND DAY—MORNING SESSION.

Wednesday, May 21st, 1879.

The Society was called to order promptly at 9 o'clock.

President Dr. Charles Duffy, Jr., in the chair.

The special order being the reading of the Annual Essay, Dr. M. Whitehead, of Salisbury, read his paper on Spondylitis.

Dr. J. K. Hall thought the paper just read by Dr. Whitehead had gone over the whole field embraced in the subject, and in such a masterly way that there was nothing more to say. The pathology and treatment had been viewed from every possible stand-point, and he for one was willing for this to go on record as a permanent contribution.

Dr. O'Hagan in seconding the motion, thought it was not proper that the Society should allow such a paper to be read, and then keep silence as to its merits. The mere reference to the Committee on Publication was not the only compliment it deserved. But he agreed with his friend, Dr. Hall, that the whole range of the subject had been traversed in such a thorough way that there seemed to be no salient points to discuss. He heartily thanked his confrère for the pleasure and instruction he had given him and the Society.

Motion for reference was carried.

The roll was called by the Secretary, Dr. Picöt.

[The completed list will appear in the last day's proceedings].

Dr. Grissom, Chairman of the Committee on Credentials made the second partial report as follows :

*To the Medical Society of North Carolina :*

The Committee on Credentials beg leave to recommend for membership : Dr. D. Lindsay, of Kernersville, Forsythe County ; and Dr. S. B. Evans, of Statesville, Iredell County. And to report that Dr. H. T. Franklin and Dr. R. L. Cowan are duly accredited

delegates from Rowan County Medical Society; and that Dr. T. D. Haigh is also accredited as delegate, and Dr. W. C. McDuffie as alternate, from Cumberland County Medical Society to the State Society.

Respectfully submitted,

EUGENE GRISSOM,  
HUGH KELLY,  
C. TATE MURPHY, } Committee.

Adopted on motion of Dr. Debnam.

The hour for the organization of the North Carolina Board of Health under the new law, having arrived, the President announced that the Society was ready to proceed.

The report of the Secretary of the State Board of Health was read preliminary to and explanatory of the method of the election of the Board under the new law.

#### REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH.

##### *To the Medical Society of North Carolina:*

Since the last meeting of this Board held in Goldsborough from the 14th to the 17th day of May, 1878, the Committee entrusted with the execution of the law, have steadily pursued the object of their labors, the ultimate end of which was the building up of the Board by every means within their power.

The epidemic disaster of yellow fever in the valley of the Mississippi in the summer of 1878, was the great public calamity of the century, and like many other evils has wrought a good which probably would have taken many years to bring about. In November last, through the energy of the late lamented Dr. John M. Woodworth, Surgeon-General U. S. M. H., aided by zealous and influential sanitarians throughout the country, a conference on yellow fever was called, under the charge and auspices of the American Public Health Association. The meeting took place in Richmond, Va., and except to those unreasonable persons who look for seed-time and harvest in the same day, the conference was productive of great good. This is no place to review it, as the history of the movement is quite fresh in the memory of medical men throughout the world.

Recognizing the necessity of placing the North Carolina Board



of Health in communication with this movement, your Secretary undertook to take the matter in hand without further conference with the Committee for lack of time, and because he knew that the means to defray the expenses were not at hand.

Your Secretary was honored by being placed on the Advisory Committee of the American Public Health Association.

On the 2nd of January the President of the Association called the Executive and Advisory Committees to meet in conference at Washington, D. C. A full meeting was the result, and from these deliberations sprung the Act of Congress which created the National Board of Health. Soon after the General Assembly of North Carolina met, the Committee appointed at the Salem meeting in 1877, met in Raleigh, and but for the miscarriage of a letter to one of the members, it would have been a full meeting.

Several days were spent in deliberation. The final result was the offering of the Health Bill nearly as it now stands to the Legislature. Its passage was a great surprise and pleasure, although it was far from what we desired.

The bill is herewith presented :

AN ACT—SUPPLEMENTAL TO AN ACT CREATING A STATE BOARD  
OF HEALTH.

*The General Assembly of North Carolina do enact :*

SECTION 1. That the Medical Society of North Carolina shall choose from its active members, by ballot, six members, and the Governor shall appoint three other persons, (one of whom shall be a civil engineer,) and these shall constitute the North Carolina Board of Health.

SEC. 2. That the North Carolina Board of Health shall take cognizance of the health interest of the citizens of the State ; shall make sanitary investigations and enquiries in respect to the people; the causes of diseases dangerous to the public health, especially epidemics ; the sources of mortality ; the effects of locations, employments and conditions upon public health. They shall gather such information upon all these matters for distribution among the people, with the especial purpose of informing them about preventable diseases. They shall be considered the medical advisers of the State, and are herein specially provided for, and shall advise the government in regard to the location, sanitary construction and management of all public institutions, and shall direct the attention of the State to such sanitary matters as in their judgment affect the industry, prosperity, health and lives of the citizens of

the State. The Secretary of the Board shall make annually to the General Assembly, through the Governor, a report of their work for the year.

SEC. 3. The members of the Board of Health as elected by the State Medical Society, shall be chosen to serve, two for six years, two for four years, two for two years. Those appointed by the Governor shall serve two years. In case of death or resignation the Board will elect new members to fill the unexpired terms.

SEC. 4. The State Board shall have a President and Secretary, who shall be Treasurer, to be elected from the members comprising the Board. The President shall serve two years, and the Secretary and Treasurer six years. The Secretary and Treasurer shall receive ..... a year for his services, but the other members of the Board shall receive no pay, except that while on actual duty at meetings of the Board, or on duty during the time special investigations are being pursued, that each member shall receive \$2.00 a day and necessary travelling expenses. These sums shall be paid by the Treasurer on duly authenticated requisitions signed approved by the President of the Board.

SEC. 5. There shall be an auxiliary Board of Health in each county in the State. These boards shall be composed of the physicians eligible to membership in the State Medical Society, the Mayor ..... of county town, the Chairman of the County Commissioners, and the City Surveyor, where there is such an officer, otherwise the County Surveyor. From this number one physician be chosen by ballot to serve two years, with the title of Superintendent of Health. His duties shall be to gather vital statistics upon a plan designated by the State Board of Health. He shall make the medico-legal *post-mortem* examinations for coroner's inquests, and attend prisoners in jails, poor-houses and work-houses. Their reports shall be made regularly as advised by the State Board through their Secretary, and they shall receive and carry out as far as practicable such work as may be directed by the State Board of Health.

SEC. 6. The salary of the County Superintendent of Health is to be paid out of the county treasurer, upon requisition and proper voucher, as follows: The salary of the Superintendent of Health shall not exceed the amount paid by the city or county in 1878, for services rendered by the city or county to sick in jail, work-house and poor-house, and medical examinations for coroner's inquests.

SEC. 7. The organization of the North Carolina Board of Health shall be completed immediately after the passage of the same. The biennial meetings for the election of officers, shall, after the meeting of organization, be for the County Boards on the first day of January, and of State Board of Health on the first day of the annual meeting of the Medical Society of North Carolina.

SEC. 8. Monthly returns of vital statistics upon a plan to be

devised by the State Board of Health, shall be made by the County Superintendent, and a failure to report by the tenth of the month, for the preceding month, shall subject the delinquent Superintendent to a fine of one dollar for each day of delinquency.

SEC. 9. *Inland quarantine* shall be under the control of the County Superintendent of Health, who, acting by the advice of the local Board, shall see that diseases dangerous to the public health, viz: small-pox, scarlet fever, yellow fever, and cholera, shall be properly quarantined or isolated, (at the expense of the city or town in which it occurs). Any violation of the rules promulgated on this subject by the Superintendent of Health shall subject the offender to a fine of twenty-five hundred dollars and imprisonment for not longer than twenty days in the county jail. In case the offender be stricken with disease for which he is quarantinable, he will be subject to the penalty on recovery, without, in opinion of the Superintendent, it should be remitted. Quarantine of ports shall not be interfered with, but the officers of the local and State Boards shall render all aid in their power to quarantine officers in discharge of their duties upon request of the latter.

SEC. 10. *Abatement of Nuisances*.—Wherever and whenever a nuisance upon premises shall exist, which in the opinion of the County Superintendent of health is dangerous to the public, it shall be his duty to notify the parties occupying the premises, (or the owner of the premises if not occupied), of its existence, its character, and the means of abating it, in writing. Upon this notification the parties shall proceed to abate the nuisance, but failing to do this shall pay a fine of one dollar a day dating from twenty-four hours after the notification has been served: *Provided, however*, that if the party notified shall make oath or affirmation before a magistrate of his or her inability to carry out the directions of the Superintendent, it shall be done at the expense of the town or city. In the latter case the limit of the expense chargeable upon the town or city shall not be more than one hundred dollars in any case.

SEC. 11. *Vaccination*.—The Secretary of the State Board of Health shall keep a supply of fresh vaccine virus at his command, and he shall issue quantities, in value not to exceed one dollar for one requisition, to County Superintendents in case of a threatened outbreak of small-pox. The County Superintendents shall vaccinate and re-vaccinate all applying for such service, free of charge, the virus for such purposes to be furnished by the Secretary of the State Board of Health, at market rates. The County Superintendent shall vaccinate every person admitted into a public institution, (jail, work-house, poor house, public school), as soon as practicable, without he is satisfied upon examination that the person is already successfully vaccinated. On the appearance of a case of small-pox in a neighborhood, all due diligence shall be used by the Superintendent that warning shall be given, and all persons not

able to pay, to be vaccinated free of charge by him. The vaccine for this purpose shall be paid by the corporation in which the Superintendent serves.

SEC. 12. Bulletins of the outbreak of diseases dangerous to the public health shall be issued by the State Board whenever necessary, and such advice freely disseminated to prevent and check the invasion of disease into any part of the State. It shall also be the duty of the Board to enquire into any outbreak of disease, by personal visits or by any method the Board shall direct. The expenses [compensation] of members on such duty shall be five dollars a day, and the necessary travelling expenses.

SEC. 13. Special meetings of the State Board of Health may be called by the President, through the Secretary. The regular annual meetings shall be held at the same time and place of the State Medical Society, at which time the Secretary shall submit his annual report.

SEC. 14. When the County Superintendent of health shall in the course of his investigation required at coroner's inquest, think it necessary to subserve the ends of justice that a chemical analysis of the *viscera* or fluids of the body be made, he shall carefully pack up and seal the suspected article in a proper receptacle in the presence of a witness and forward it to the chemist of the agricultural station for analysis. (Such analysis shall be made free of charge, and be returned to the coroner of the county, such analysis having precedence over other matters of investigation not of a similar character, then in the laboratory of the chemist). Analysis for purposes connected with the hygienic duties of the Superintendent of health shall in like manner be made by the said chemist, upon requisition signed and approved by the Secretary of the State Board of Health. Such analysis will include soil, drinking water, articles of food, air, &c., to be packed for transmission by direction of the chemist of the agricultural station.

SEC. 15. For carrying out the provisions of this Act two hundred dollars is hereby annually appropriated, to be paid on requisition signed by the Treasurer and President of the State Board of Health, and the printing and stationery necessary annually for the Board be furnished on requisition upon the State printer. A yearly statement shall be made to the Legislature of all moneys received and expended in pursuance of this Act.

SEC. 16. All previous Acts conflicting with this are hereby repealed upon the passage of this Act.

Ratified the 14th day of March, 1879.

Responding to a call from the National Board of Health for a conference with State Sanitary officers, your Secretary assumed the responsibility to represent the State Board in this conference. It was held in Atlanta, Ga., on the 5th, 6th, 7th and 8th of May. At this meeting many questions of importance to us were discussed.

and it is believed that the formulation of these views there expressed will mark an era in our new work.

Your Secretary deemed it of great importance to begin early to cultivate proper relations with the National Board, and believes that this part of his voluntary work will be approved of by the friends of the movement in North Carolina.

I present herewith the blanks issued for your inspection. I congratulate the Medical Society of North Carolina upon the healthy development which by the efforts of her members she has been able to work out, but must remind them that we are just at the beginning of primary work, the proper performance of which will decide whether or not we are true sanitarians, and deserve further powers and privileges from the people of North Carolina.

Respectfully,

THOMAS F. WOOD,  
Secretary.

Motion by Dr. Debnam that the gentlemen who had passed the Board be at once admitted to take part in the business about to ensue.

Dr. Grissom explained that the Board of Examiners was not quite ready with their report.

Shortly afterwards the following was submitted by the Chairman of the Committee on Credentials, Dr. Grissom :

*To the Medical Society of North Carolina :*

The Committee on Credentials beg leave to report for membership the following named gentlemen recommended by the Board of Medical Examiners :

Dr. James M. Covington, Rockingham.

“ Cornelius M. Battle, Rocky Mount.

“ Charles M. Glenn, Greensborough.

“ Edward Lindsay, Greensborough.

“ D. M. Prince, Laurel Hill, Richmond County.

“ O. P. Robinson, Fayetteville.

“ W. R. Hollinsworth, Mt. Airy.

“ C. E. Bradsher, Hurdle's Mills, Person County.

“ H. W. Lee, Raleigh.

“ Hubert Haywood, Raleigh.

Dr. Turner E. Balsley, Greensborough.

Respectfully submitted,

EUGENE GRISSOM,	} Committee.
HUGH KELLY,	
C. TATE MURPHY,	

On motion of Dr. Thomas F. Wood, Dr. A. R. Ledoux, Chemist and member of the North Carolina Board of Health on part of the State, being present, was invited to take part in the deliberations of the Society. Carried.

The report of the Secretary, Dr. Wood, and the new law being read, enquiries from all parts of the hall were put, asking for further elucidation of the law.

Dr. C. T. Murphy asked how to proceed in cases that medico-legal chemical analyses were required by the County. The circular issued from the Chemist of the Board, Dr. Ledoux, was read as follows :

METHOD OF PROCEDURE IN CASES OF SUSPECTED POISONING.

LABORATORY OF THE N. C. EXPERIMENT STATION,  
CHAPEL HILL, April 24th, 1878.

*To the Coroners and County Superintendents of Health of the State of North Carolina :*

I beg to call attention to Section 14 of "An Act Supplemental to an Act creating a State Board of Health passed by the late Assembly and ratified on March 14th. This Section is as follows :

"SEC. 14. When the County Superintendent of Health shall in the course of his investigation required at coroner's inquest, think it necessary to subserve the ends of justice that a chemical analysis of the *viscera* or fluids of the body be made, he shall carefully pack up and seal the suspected article in a proper receptacle in the presence of a witness and forward it to the chemist of the agricultural station for analysis. (Such analysis shall be made free of charge, and be returned to the coroner of the county, such analysis having precedence over other matters of investigation not of a similar character, then in the laboratory of the chemist)." \* \* \*

The Board of Agriculture, recognizing not only the claims of the law but the claims of humanity upon them, have made arrangements by which the analyses in question can be made through the Experiment Station. Knowing that were I compelled to make such analysis in person, it would occasion great delay and serious interference with my work, especially during my long absences from

my post when testifying at Court, &c., they adopted the following resolution :

*“ Resolved*, That the Chemist of the Board be authorized to employ such additional labor as may be necessary to prosecute the analyses in cases of suspected poisoning, as required by Section 14 of An Act Supplemental to an Act creating a State Board of Health, at an expense for the same of not more than \* \* \* dollars per annum.”

In compliance with the above resolution of the Board, I have secured the coöperation of Prof. A. F. Redd, of the University, who will devote himself to any cases which may arise under the provisions of the law above cited. Prof. Redd has made all the analyses of this character that have been required in the State during the last two years, so far as I am informed. Your attention is called to the following instructions which should be followed as nearly as possible to comply with the law, and to secure an analysis which will stand in Court.

1st. Except in special cases, it will be sufficient to place the stomach, the whole of the liver and spleen and the bladder each in a separate, perfectly clean glass jar, with tightly fitting glass top (a fruit jar serves well). Care should be taken that none of the contents of the stomach or bladder escape. No disinfectant or preservative should be added in any case.

2d. Seal each jar thoroughly and label distinctly with the name of its contents.

3d. Secure, if possible, any vomit or urine voided immediately before death, and also any liquids, powders or other substances which are suspected of having caused death, or any vials or other receptacles which may have contained the poison, sealing each as before.

4th. Let these jars be delivered at the Station by some one, properly authorized, in person. Do not send by express. The person bringing the jars should never allow them (or the receptacle in which they may be packed), to get out of his sight, unless to go under a lock, to which the carrier holds the key. The messenger will bring the jars to the Experiment Station and deliver them to me, or to Prof. Redd in my presence.

The expenses of these analyses will be defrayed by the Department of Agriculture, but the pay of Prof. Redd in attendance upon

Court will still be regulated by the laws specially providing for the remuneration of witnesses and experts.

Respectfully,

ALBERT R. LEDOUX,

Chemist to the Department of Agriculture.

Dr. Foote, of Warrenton, made some remarks on the organization of the Board of Health in his county, discussing the bearings of the new law upon the present status in Warren.

The Secretary of the Board said in reply that he thought these County Boards were not mere voluntary organizations, but were as compulsory by the law as any on the Statute Book. That no other provision was made for the care of the sick in public institutions in the counties except such as would be given by the County Superintendents of Health. That the Superintendents were elected from among the *physicians* composing the Board, and that their pay was to be what the sum total of services rendered to the county for the sick in jail, poor-house, work-house, and medico-legal examinations for the year 1878. That licentiates of the Board of Medical Examiners, or those physicians not coming under its provisions by reason of having begun the practice of medicine prior to 1859, were recognized as eligible within the meaning of the law.

A general discussion of the bearing of the bill, reviewing its benefits, its faults, and short comings was indulged in, by several members. After this the Society proceeded to ballot.

Dr. P. E. Hines, of Raleigh, moved that the election of the Board be proceeded with and that the election of the two members for six years be taken up.

He nominated

Dr. S. S. Satchwell, of Rocky Point, Pender County.

Dr. Thomas F. Wood, of Wilmington.

Dr. Satchwell and Dr. Wood were unanimously elected.

Dr. Satchwell returned thanks for the complimentary vote he had received.

On motion of Dr. C. Tate Murphy, the two members to serve four years were balloted for.

Dr. C. J. O'Hagan, Geo. A. Foote, James McKee, Wm. R. Wilson, and Eugene Grissom were put in nomination. The choice was as follows, to serve four years :



Dr. Charles J. O'Hagan, Greenville.

“ George A. Foote, Warrenton.

The remaining two members to serve for two years were ballotted for, resulting in the election of

Dr. M. Whitehead, of Salisbury.

“ R. L. Payne, of Lexington.

The Secretary then declared the following members of the North Carolina Board of Health to be elected :

For six years—

Dr. S. S. Satchwell, Rocky Point, Pender County.

“ Thomas F. Wood, Wilmington.

For four years—

Dr. Charles J. O'Hagan, Greenville.

“ George A. Foote, Warrenton.

For two years—

Dr. M. Whitehead, Salisbury.

“ R. L. Payne, Lexington.

The Committee on Credentials made the following partial report :  
*To the Medical Society of North Carolina :*

The Committee on Credentials beg leave to recommend the following named gentlemen for membership :

Dr. W. S. Coble, Brick Church, Guilford County.

Dr. R. W. Thomas, Thomasville.

We also report the following names recommended by the Board of Examiners :

Drs. Wm. P. Beall, S. B. Jones, J. M. Baker, H. T. Trantham, W. P. Mercer, A. D. McDonald, W. J. Gilbert, J. J. Cox, W. F. Cook, S. W. Stevenson and Edward A. Speed.

EUGENE GRISSOM,	} Committee.
HUGH KELLY,	
C. TATE MURPHY,	

The members of the newly elected Board of Health, were requested to meet at the McAdoo House, immediately after adjournment of the Afternoon Session, to elect officers.

Dr. James McKee, of Raleigh, introduced the following resolution which was carried :

WHEREAS, At the session of this Society, held in Raleigh, in May, 1872, Dr. W. W. Gaither was, by resolution, elected an honorary member of the same ; and

WHEREAS, It does not stand as a matter of record upon the

books of the Secretary, but does upon those of the Treasurer ; and

WHEREAS, Dr. Gaither has resumed the practice of his profession and desires to be in active membership with the Society.

*Resolved*, That the Treasurer be authorized from and after this meeting to transfer his name to the list of paying members, and that this be made a matter of record.

Adjourned until 3 o'clock P. M.

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SECOND DAY—AFTERNOON SESSION.

Wednesday, May 21st, 1879.

Meeting called to order promptly at 3 o'clock by the President, Dr. Charles Duffy, Jr.

Dr. W. W. Gaither introduced the following resolution :

*Resolved*, That our members in Congress be earnestly requested to urge the passage of a bill, immediately, freeing cinchona bark and all its products, from all import duty. Carried.

Upon a call for written communications, Dr. R. H. Lewis, of Raleigh, read on the "Spectacles in Youth."

Dr. Picöt read letters from Drs. Ramsay, and A. B. Pierce, regretting their inability to attend.

Dr. O'Hagan thought there was no question of more practical value than the one treated of in Dr. Lewis' paper, and none that had a wider range of usefulness. There are moral troubles which arise from optical disturbances little understood by the general practitioner. The illustrations introduced were some myopic cases. The *New York Medical Record* had an account of the same subject before the Medical Society of New York. Dr. Hermann Knapp called attention to moroseness resulting from myopic eyes. For these and many other reasons he deemed Dr. Lewis' paper one of unusual importance, and very timely, and he thought the thanks of the Society ought to be tendered him, and that it be referred to the Committee on Publication.

Dr. Thomas J. Moore read a paper illustrating views of Dr. Chisholm, of Baltimore—the case being one of gun-shot wound of the eye.

Dr. C. Tate Murphy moved the reference of Dr. Moore's paper to the Committee on Publication.

The Committee on Obituary made the following report :

*To the Medical Society of North Carolina :*

The Committee beg to submit the following report :

We have examined the roll of membership, and find those of our members deceased to-wit: J. A. Gibson, late of Concord, F. N. Luckey, late of Rowan county, and G. H. Macon, Littleton, N. C.

*Resolved*, That in the death of these brethren the Society has sustained a loss of three of her honored members, and the sympathies of the Society are hereby tendered to the bereaved families of the deceased.

JAMES K. HALL,	} Committee.
JAMES F. LONG,	
W. T. CHEATHAM,	

Dr. M. Whitehead moved that the Essayist be allowed to choose his own subject. Carried.

Dr. W. C. McDuffie, of Fayetteville, read a paper on "Puerperal Eclampsia," which, on motion of Dr. Shaffner, was referred to the Committee on Publication.

Dr. Wm. R. Wood read a paper on the "Use of Sulphur in the Treatment of Diphtheria."

Referred on motion of Dr. McKee to the Committee on Publication.

Dr. R. F. Lewis, of Lumberton, read a paper on "Puerperal Eclampsia with Pyophthalmitis."

Referred, on motion of Dr. W. R. Wilson to the Committee on Publication.

Dr. M. Whitehead reported a case of entire absence of clitoris, vagina and uterus. The patient had well developed mammae, usual hairy covering of the mons veneris. He could easily pass the finger into the bladder through the urethra. The partition between the bladder and the rectum was very thin. He could pass his finger up both organs. There was no menstrual molimen, and no cul de sac.

Dr. R. K. Gregory, of Charlotte, reported the case of an Irishman. He had had violent pains in the bladder, with passage of pus from the bladder. There was great vesical tenesmus. Carbolic acid solution was injected into the bladder. The patient passed 400 hairy worms from the bladder; the largest was half an inch, from that to the size of a broomstraw.

D. J. H. Hall had also a case in the same town, in which the patient was afflicted for the greater part of eight or ten years.

The Committee on Credentials made the following partial report :  
*To the North Carolina Medical Society :*

The Committee on Credentials respectfully recommend Dr. J. M. Tomlinson, Bush Hill, Randolph county, for membership ; and report the following named gentlemen recommended by the Board of Examiners :

- Dr. J. A. Sexton, Raleigh, N. C.
- “ J. T. Sledge, Middleburg, N. C.
- “ R. H. Hargrave, Robesonville, Martin County.
- “ J. T. Winston, Youngsville, Franklin County.
- “ J. L. Gunn, Yanceyville.
- “ C. A. Swindell, Greenville, Pitt County.
- “ H. F. Burgin, Marion, N. C.
- “ W. L. Abernethy, Hickory, Catawba County.

EUGENE GRISSOM,	} Committee.
HUGH KELLY,	
C. TATE MURPHY,	

The President announced that the address of Dr. Lane, the annual orator would be delivered in the Benbow Hall at 8 o'clock, and that the medical profession and public generally were invited to attend.

The Society assembled in a body at 8 o'clock on Wednesday night in Benbow Hall, to listen to the address of the orator, Dr. Wm. W. Lane, of Wilmington. There was a large audience of ladies and gentlemen to grace the occasion with their presence.

The speaker was listened to with the closest interest. He reviewed the history of sanitary and medical science, but dwelt more particularly upon the development of modern therapeutics, and its relations to existing physiology.

[See supplement].

*Resolved*, That the thanks of the Society be tendered to Dr. Lane for his able and interesting address, and that a copy be solicited for reference to the Committee on Publication.

Adjourned until 9 o'clock, A. M.

### THIRD DAY—MORNING SESSION.

Thursday, May 22, 1879.

The Society was called to order promptly at 9 o'clock.

President Dr. Charles Duffy, Jr., in the chair.

Dr. M. Whitehead moved to pay the travelling expenses of the Treasurer, as some slight testimonial of the appreciation of the Society of his dutiful services. Carried.

Dr. S. S. Satchwell, of Pender County introduced the report of the Committee appointing Dr. Thomas J. Moore, of Charlotte, as Essayist for the session of 1880.

Dr. M. Whitehead, of Salisbury, introduced the following resolution :

*Resolved*, That we again endorse the NORTH CAROLINA MEDICAL JOURNAL and would earnestly urge upon the members of the profession in the State, and of this Society its support by purse and pen, and we regard its success as of vast importance to the profession of the State.

Dr. C. Tate Murphy in seconding the resolution said he had prepared a similar resolution himself, and he was forestalled by his friend, Dr. Whitehead. This made him all the more sure that his judgment in the course the Society should pursue was plain. We should give our united endorsement to this work. It was a work of the whole profession, and had shown its ability and usefulness.

Dr. T. D. Haigh, of Fayetteville, thought the NORTH CAROLINA MEDICAL JOURNAL was a great success. It has gained every month in strength and power, and this was all due to the energy and discrimination of the editors. He would call the attention of the Society to the indisposition on the part of medical men to appear in print, especially those in the country. They are too prone to believe that the cases occurring in their practice of not sufficient importance for the public professional eye ; whereas, well recorded cases of every day occurrence were the sure guides to be followed by general practitioners, rather than the rare cases only seen in hospitals. The editors had a right to expect aid from every member of the State Society. He would not speak of the ability of the editors, for that was too widely recognized to require a word from him.

Dr. P. E. Hines, of Raleigh, endorsed what Dr. Haigh had said. The country practitioner in his quiet way, working out cases at the bedside without an opportunity of consulting his professional friends or his books, did the sort of work that has made a name for the general practitioners in America. Dr. Marshall Hall in his visit to this country recognized the true worth of this important class.

They are the conservative element in the science and art of surgery and medicine in this country, and their yet unwritten experience is what is yet to add largely to the reputation of American physicians. Their duty is to clearly sustain the JOURNAL by all means in their power.

Dr. Whitehead's resolution was unanimously adopted.

[The report of the Committee on Credentials here presented will appear in another place].

Dr. R. K. Gregory then called the attention of the Society to some appliances of his own devising.

*First.*—The appliance of the microphone to the stethoscope, so as to develop audibly the minutest abnormal sounds.

*Second.*—A model for a sphygmograph.

*Third.*—A self registering tape for measuring the respiration.

A full description with illustration is promised for the appendix.

Dr. Satchwell introduced Dr. James F. Long, and announced that he had carefully prepared an address on the "Use and Abuse of Alcoholic Drinks."

Dr. Long's address was received with marked approbation.

Dr. Hines offered his sincere thanks for the very instructive and magnificent address of Dr. Long. Dr. George B. Wood's last advice to the class in which he graduated was—"Look well before administering alcohol. He would impress the importance of the same warning so truthfully painted in words by Dr. Long upon all present. It was the great moral question of the day, and the medical profession had a vast influence to wield for good or for evil, in the very beginning of drinking habits.

Dr. C. Ta'e Murphy also endorsed most heartily the tenor of Dr. Long's address, and thought it was high time the profession was sounding the alarm from their scientific stand-point.

He moved that Dr. Long be requested to furnish the Committee on Publication with a copy of his address. Carried.

Dr. W. W. Gaither reported *first* a case of labor that he attended in which, upon examination, he found there was a tumor complicating the delivery. *Second.*—A case of "Spontaneous Evolution."

Dr. Hines reported a case showing the power of nature unaided to convert an apparently difficult presentation into a natural one, and effect delivery.

Dr. C. Tate Murphy reported a case of difficult labor, shoulder presentation, in which by changing the position of the mother; delivery was effected without further trouble.

Dr. I. W. Faison reported three cases of reflex phenomena resulting from congenital phimosis, with adhesions of the prepuce to the glans.

In the *first* case the reflex phenomena were weakness in the lower extremities and a stumbling gait. A touch on the prepuce brings about spasm. In the *second* case there was also wakefulness, screaming at night, stumbling and modified paralysis of the muscles of the neck. In the *third* case the symptoms were less marked. Sleeplessness and jactitation were prominent. In each of the cases he broke up the adhesions with his fingers, or dissected them with the bistoury, a cure resulting in each case.

Dr. R. K. Gregory called attention to pyalism produced by the use of salicylic acid, and the salicylates. It was to him a new phenomenon, and was worth mentioning more particularly as he had not seen it recorded in any work at his command.

Dr. A. G. Carr, of Durham, exhibited a phosphatic calculus weighing six ounces, removed by the left lateral perineal incision. The original incision had to be greatly enlarged to admit of its passage.

Dr. G. A. Foote, of Warrenton, reported a case of bloodless tracheotomy.

Dr. Richard H. Lewis, of Raleigh, reported a case of syphilitic or bital nodes, pressing on the third pair of nerves causing strabismus.

Most of the remaining morning session was passed in conversational reports of medical and surgical cases, which it was impossible for the Secretary to report :

Dr. Hines introduced the following resolution :

*Resolved*, That a committee of three be appointed to examine the law establishing the Medical Board of Examiners, who shall select such sections of the law, as they shall think best that the profession and public should be thoroughly acquainted with.

*Resolved further*, That this Committee be instructed to have all the sections of the law selected by it published in at least six weekly newspapers in the State having the largest circulation, and such other weeklies and daily papers as it may deem best for the information of the public, for at least three months in the weeklies and one month in the daily papers. To be published before the next annual meeting of this Society. Carried.

The committee appointed to carry out the resolution is composed as follows : Dr. P. E. Hines, Raleigh ; Dr. W. T. Ennett, Asheton, Pender county ; and Dr. H. T. Bahnson, Salem.

Adjourned until 3 o'clock P. M.

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THIRD DAY—AFTERNOON SESSION.

Thursday, May 22, 1879.

The Society was called to order promptly at 9 o'clock.

President Dr. Charles Duffy, Jr., in the chair.

Dr. Eugene Grissom introduced a resolution creating a new Section on Otology and Ophthalmology. Adopted.

Dr. Bahnson, Secretary of the Board of Medical Examiners, introduced the following resolution :

*Resolved*, That candidates who pass the Board of Examiners at the present session, but too late to be announced to the Society before their adjournment, be declared members of the Society, and be so enrolled. Carried.

The Committee on Nominations made the following report, which was adopted :

*To the Medical Society of North Carolina :*

The Nominating Committee beg leave to submit the names of the following gentlemen as officers for the year 1879 :

For President :

Dr. J. F. Shaffner, Salem.

For Vice-Presidents :

Dr. J. K. Hall, Greensborough.

“ W. C. McDuffie, Fayetteville.

“ W. R. Wilson, Granville.

“ R. F. Lewis, Lumberton.

Treasurer :

Dr. A. G. Carr, Durham.

Secretary :

Dr. L. J. Picöt, Littleton.

Orator :

Dr. Eugene Grissom, Raleigh.



DELEGATES TO AMERICAN MEDICAL ASSOCIATION.

- Dr. F. M. Rountree, Hookerton.  
“ Charles Duffy, Jr., Newbern.  
“ H. M. Alford, Greensborough.  
“ J. J. Summerell, Salisbury.  
“ Willis Alston, Littleton.  
“ John McDonald, Washington.  
“ H. T. Bahnson, Salem.  
“ W. I. Royster, Raleigh.  
“ Walter C. Murphy, Clinton.  
“ Walter Debnam, Earpsborough.  
“ S. B. Flowers, Mt. Olive.  
“ P. B. Barringer, Dallas.

DELEGATES TO VIRGINIA MEDICAL SOCIETY.

- Dr. W. T. Cheatham, Henderson.  
“ A. A. Hill, Lexington.  
“ I. W. Faison, Fulton.  
“ James McKee, Raleigh.  
“ N. S. Siewers, Salem.  
“ C. J. O'Hagan, Greenville.  
“ Wm. R. Wood, Scotland Neck.  
“ W. A. B. Norcom, Edenton.

DELEGATE TO AMERICAN PUBLIC HEALTH ASSOCIATION.

- Dr. Thomas F. Wood, Wilmington.

PUBLISHING COMMITTEE.

- Dr. Thomas F. Wood, Wilmington.  
“ W. W. Lane, Wilmington.  
“ W. T. Ennett, Asheton.  
“ L. J. Picöt, Littleton.

COMMITTEE TO APPOINT ESSAYIST.

- Dr. S. S. Satchwell, Rocky Point.  
“ M. Whitehead, Salisbury.  
“ W. W. Gaither, Lexington.

COMMITTEE ON OBITUARIES.

- Dr. J. K. Hall, Greensborough.  
“ J. F. Long, Newberne.  
“ W. T. Cheatham, Henderson.

## BOARD OF CENSORS.

Dr. E. Burke Haywood, Raleigh.

“ A. W. Knox, Raleigh.

“ R. F. Lewis, Lumberton.

Respectfully submitted,

R. L. PAYNE,

H. W. FAISON;

W. C. McDUFFIE,

C. J. O'HAGAN;

JAS. McKEE,

Committee.

## SECTIONS.

The President appointed the following gentlemen Chairmen of Sections :

*Surgery and Anatomy*.—Dr. W. C. McDuffie, Fayetteville.

*Obstetrics and Gynecology*.—Dr. Wm. R. Wilson, Townesville.

*Practice of Medicine*.—Dr. James McKee, Raleigh.

*Materia Medica and Therapeutics*.—Dr. C. Tate Murphy, Clinton.

*Microscopy and Pathology*.—Dr. Henry Tull, Kinston.

*Ophthalmology and Otolology*.—Dr. R. H. Lewis, Raleigh.

A letter was read by permission from Dr. John McCormick, by Dr. Eugene Grissom. Dr. McCormick sets forth that “diphtheria is modified by measles and scarlatina, as much so as variola is modified by cow-pox,” and it is his firm conviction “that the action of measles and scarlatina will be as effectual in rendering diphtheria diphtheroid, as vaccine renders variola varioloid.” He hoped the Society would ask that the list takers be instructed by the proper authorities to ask the following questions :

“Have you lost any member of your family from diphtheria?”

“Had the person ever had measles or scarlatina?”

No action taken.

Dr. Charles Duffy, Jr., the retiring President, then delivered his address on “The Conditions Essential to the Propagation and Spread of the Infectious Diseases.”

Dr. Charles J. O'Hagan expressed the common sentiment of the Society in its indebtedness to Dr. Duffy for the address just delivered, and moved its reference to the Committee on Publication.

[See Appendix].

Dr. Grissom paid a handsome tribute to the patience, courtesy and ability which the retiring President had performed his duties, and upon his motion a vote of thanks was tendered to him.

The President elect, Dr. J. F. Shaffner, of Salem, was conducted to the chair.

He thanked the Society for the honor done him by this kind act of partiality. He would endeavor to serve the Society to the best of his ability.

Upon the call for nomination for the next place of meeting, Dr. Thomas F. Wood proposed Wilmington, and the 2d Tuesday in May as the day.

There was no opposition and Wilmington was selected by acclamation.

Dr. C. Tate Murphy offered a vote of thanks to the citizens and the medical profession of Greensborough, for their unbounded hospitality. Carried by applause.

Dr. Picot offered a vote of thanks to the different railroad lines for their generous reduction of fare. Carried.

Dr. Foote offered a vote of thanks to Dr. Benbow for the use of the Hall in which the meetings were held.

On motion of Dr. Satchwell, the Society adjourned to meet in Wilmington on the 2d Tuesday in May, 1880.

The following is the complete list of

#### NEW MEMBERS FOR 1879—RECAPITULATION.

Dr. John W. Smith, Reidsville.	Dr. D. M. Prince, Laurel Hill.
" C. C. Peacock, Wilson.	" J. A. Sexton, Raleigh.
" B. A. Check, Greensborough.	" S. B. Evans, Statesville.
" J. A. McLean, McLeausville.	" N. Mc. Johnston, Durham.
" J. G. Ector, Friendship.	" J. T. Sledge, Middleburg.
" Hubert Haywood, Raleigh.	" R. H. Hargrove, Robersonville.
" James M. Covington, Rockingham.	" J. T. Winston, Youngsville.
" Henry W. Lee, Raleigh.	" H. P. Burgin, Marion.
" W. R. Hollingsworth, Mt. Airy.	" C. A. Swindell, Greenville.
" O. P. Robinson, Fayetteville.	" W. L. Abernethy, Hickory.
" C. E. Bradsher, Hurdle's Mills.	" John Chapel Walton, ———.
" B. W. Thomas, Thomasville.	" J. M. Tomlinson, Bush Hill.
" S. W. Stevenson, Mooresville.	" Julian M. Baker, Tarborough.
" H. T. Trantham, Salisbury.	" T. Eugene Balsley, Greensborough.
" W. P. Beall, Greensborough.	" B. G. Harris, High Point.
" Wm. A. Coble, Brick Church.	" A. D. Lindsay, Kernersville.
" A. D. McDonald, Wilmington.	" J. L. Gunn, Yanceyville.
" S. B. Jones, Charlotte.	" Thos. E. Anderson, Statesville.
" Charles M. Glenn, Greensborough.	" C. S. Battle, Rocky Mount.
" Joseph J. Cox, New Garden.	

## REVISED ROLL

*Of Members in the Order in which they Signed the Constitution.*

Those marked \* were present at the last meeting. Those marked † deceased.

—o—

Dr. E. Strudwick, Hillsborough.  
 " W. G. Hill, † Raleigh.  
 " N. J. Pittman, Tarborough.  
 " J. B. Jones Charlotte.  
 " R. B. Haywood, \* Raleigh.  
 " Jas. B. Dunn, Raleigh.  
 " W. George Thomas, Wilmington.  
 " S. S. Satchwell, \* Rocky Point.  
 " J. R. Mercer, Tarborough.  
 " E. B. Haywood, Raleigh.  
 " Jas. P. Bryan, Kinston.  
 " A. B. Pierce, Halifax.  
 " H. W. Faison, \* Faison's Depot.  
 " Alman Holmes, Clinton.  
 " E. A. Anderson, Wilmington.  
 " C. T. Murphy, \* Clinton.  
 " Hugh Kelly, \* Statesville.  
 " F. M. Henderson, Concord.  
 " J. J. Summerell, \* Salisbury.  
 " P. E. Hines, \* Raleigh.  
 " M. Whitehead, \* Salisbury.  
 " J. G. Ramsey, Rowan Mills.  
 " J. A. Gibson, \* Concord.  
 " R. H. Winborne, Edenton.  
 " J. K. Hall, Greensborough.  
 " Geo. A. Foote, Warrenton.\*  
 " W. R. Sharp, † Fulton.  
 " Eugene Grissom, \* Raleigh.  
 " R. L. Payne, \* Lexington.  
 " F. M. Rountree, \* Snow Hill.  
 " W. A. Collett, Morganton.  
 " E. F. Ashe, Wadesborough.  
 " D. B. Woods, Rowan Mills.  
 " Chas. J. O'Hagan, \* Greenville.  
 " W. A. B. Norcom, \* Edenton.  
 " J. F. King, Wilmington.  
 " J. W. Jones, \* Tarborough.  
 " J. F. Long, \* Washington.  
 " John K. Ruffin, \* Wilson.  
 " C. W. Knight, \* Tarborough.  
 " J. B. Hughes, New Berne.  
 " W. W. Gaither, \* Lenoir.  
 " J. C. Gidney, Shelby.  
 " William Little, \* Raleigh.  
 " Wm. R. Wood, \* Scotland Neck.  
 " S. H. Hicks, \* Rocky Point.  
 " M. T. Savage, Scotland Neck.  
 " Thomas F. Wood, \* Wilmington.  
 " Thos. C. Powell, Rocky Mount.  
 " Franklin Hart, Tarborough.  
 " Geo. L. Kirby, Goldsborough.  
 " L. A. Stith, Wilson.  
 " J. F. Shaffner, \* Salem.  
 " G. H. Macon, † Lillington.  
 " W. T. Cheatham, \* Henderson.  
 " Robt. I. Hicks, \* Williamsborough.

Dr. Elisha Porter, Rocky Point.  
 " Walter Debnam, \* Earpsborough.  
 " F. J. Haywood, Jr., Raleigh.  
 " C. R. Barron, Toisnot.  
 " B. P. Alston, Warrenton.  
 " G. G. Smith, \* Concord.  
 " F. N. Luckey, † Salisbury.  
 " D. N. Patterson, Mangum.  
 " Joel G. King, Warrenton.  
 " J. B. Sugg, Tarborough.  
 " H. T. Bahuson, \* Salem.  
 " Geo. N. Ennett, Saunders' Store.  
 " Chas. Duffy, Jr., \* Newbern.  
 " W. W. Lane, \* Wilmington.  
 " R. L. Cowan, \* Rowan Mills.  
 " R. F. Lewis, \* Lumberton.  
 " Jas. S. Robinson, Elizabeth.  
 " W. J. Love, Wilmington.  
 " J. C. Walker, Wilmington.  
 " David D. Sloan, † Sampson County.  
 " James McKee, \* Raleigh.  
 " L. L. Alexander, New Hanover Co.  
 " Willis Alston, Littleton.  
 " W. J. H. Bellamy, Wilmington.  
 " Geo. F. Lucas, Point Caswell.  
 " Walter Brodie, Whitaker's.  
 " A. S. Jones, Warrenton.  
 " H. Otis Hyatt, \* Kinston.  
 " J. L. Knight, \* Tarborough.  
 " C. S. Killebrew, Tarborough.  
 " W. T. Ennett, \* Rocky Point.  
 " D. McL. Graham, Point Caswell.  
 " W. I. Royster, Raleigh.  
 " George Fields, Warrenton.  
 " C. G. Cox † Richlands.  
 " G. Gillett Thomas, Wilmington.  
 " V. N. Seawell, Wallace.  
 " Geo. S. Attmore, Newbern.  
 " S. B. Flowers, \* Mt. Olive.  
 " P. W. Young, Oxford.  
 " John McDonald, Washington.  
 " Francis Duffy, Newbern.  
 " L. L. Staton, Tarborough.  
 " T. B. Germon, Ridgeway.  
 " A. G. Carr, \* Durham.  
 " John A. Allison, Statesville.  
 " J. B. Gaither, Salisbury.  
 " J. M. Hadley, \* La Grange.  
 " W. G. Johnson, Farmington.  
 " W. J. McLinder, Wadesborough.  
 " Josh. W. Vick, \* Selma.  
 " Isaac C. Green, Warrenton.  
 " P. L. Murphy, Wilmington.  
 " Joseph Graham, \* Charlotte.  
 " J. M. Miller, Charlotte.  
 " J. L. Henderson, Mt. Pleasant.

Dr. J. R. Wilson, Harris' Depot.  
 " Richard Anderson, Albermarle.  
 " J. S. Blair, Harris' Depot.  
 " J. F. Miller, Goldsborough.  
 " S. J. Alexander, Randsburg.  
 " H. K. DeArmand, Pineville.  
 " J. P. McCombs,\* Charlotte.  
 " T. S. Duffy,† Rutherfordton.  
 " O. P. Houston, Mt. Ulla.  
 " S. J. Gilmer, Concord.  
 " John Fink,\* Concord.  
 " W. H. Lilley,\* Concord.  
 " Thomas J. Moore,\* Charlotte.  
 " E. S. Foster,\* Louisville.  
 " A. A. Hill,\* Lexington.  
 " J. H. Baker, Tarborough.  
 " J. B. Hall, Scotland Neck.  
 " J. M. Richardson, Lincolnton.  
 " T. D. Haigh,\* Fayetteville.  
 " Alex. Montague.  
 " L. J. Picot,\* Littleton.  
 " David N. Sills, Castalia.  
 " John A. Drake, Battleborough.  
 " W. C. Murphy,\* Magnolia.  
 " W. J. Cooke, Louisville.  
 " E. J. Thorpe, Rocky Mount.  
 " Joshua Taylor,\* Tarborough.  
 " D. W. Bullock, Tarborough.  
 " W. H. Whitehead, Battleborough.  
 " C. W. Eagles, Sparta.  
 " R. A. Sills, Nashville.  
 " R. H. Speight, Tarborough.  
 " C. E. Moore, Battleborough.  
 " H. G. Land, Poplar Branch.  
 " R. J. Grimes, Robersonville.  
 " W. C. McDuffie,\* Fayetteville.  
 " B. W. Robinson, Fayetteville.  
 " P. S. Peteway, Enfield.  
 " J. A. McRae, Fayetteville.  
 " Henry Tull,\* Kinston.  
 " A. V. Budd, Egypt.  
 " R. R. Robeson, Kyles' Landing.

Dr. M. J. DeRossett, New York City.  
 " W. A. Murdock, Mt. Ulla.  
 " James W. McNeil, Fayetteville.  
 " J. D. McMillan, Lumberton.  
 " W. H. McKinnon, Fayetteville.  
 " Jos. Hollingsworth, Mt. Airy.  
 " Robert W. Glenn,\* Greensborough.  
 " Beverly Jones,\* Forsyth County.  
 " Adam E. Wright, Wilmington.  
 " Nat. S. Henderson,\* Pelham.  
 " Jeff. Scales,\* Reidsville.  
 " Geo. W. Long,\* Graham.  
 " Richard H. Lewis,\* Raleigh.  
 " Geo. W. Graham, Raleigh.  
 " Preston Rowan, Winston.  
 " J. D. Roberts, Magnolia.  
 " L. H. Hill,\* Germantown.  
 " J. A. Bitting, Germantown.  
 " W. W. Wilhelm, Mooresville.  
 " W. R. Wilson,\* Townesville.  
 " E. Nelson Booker, Clayton.  
 " N. S. Siewers, Salem.  
 " L. G. Hunt, Huntsville.  
 " Jas. E. Griffith, Clemmonsville.  
 " W. P. Mallett,\* Chapel Hill.  
 " H. M. Alford,\* Greensborough.  
 " F. W. Potter, Smithville.  
 " J. F. Harrell, Whiteville.  
 " W. P. Exum, Wayne County.  
 " D. Stuart Lyon, Charlotte.  
 " A. M. Lee, Clinton.  
 " J. R. McClelland,\* Mooresville.  
 " Peter McLean,\* Shoe Heel.  
 " Richard J. Noble, Selma.  
 " Wm. H. H. Cobb, Goldsborough.  
 " J. H. Tucker, Henderson.  
 " C. G. Bryant, Rich Square.  
 " E. H. Hornaday,\* Willow Green.  
 " Paul B. Barringer,\* Dallas.  
 " I. Wellington Fason,\* Fulton.  
 " R. K. Gregory,\* Greensborough.  
 " John A. Pollock, Kinston.

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#### HONORARY MEMBERS.

Dr. W. T. Howard, Baltimore, Md.  
 " Otis F. Manson, Richmond, Va.  
 " R. H. Dillard, Edenton, N. C.

Dr. F. D. Lente, Cold Springs, N. Y.  
 " John H. Hill, Goldsborough, N. C.  
 Prof. Lewis A. Sayre, M. D., New York.

#### OFFICIAL LIST OF CANDIDATES LICENSED BY THE STATE BOARD OF MEDICAL EXAMINERS.

The Board of Medical Examiners of the State of North Carolina, at its session held in Greensborough, May 19th to May 22d, 1879, examined forty-one applicants for license, of these thirty-six were found duly qualified, and received license to practice medicine in its various branches, as follows :

- Dr. W. P. Beall, Greensborough.  
 " Charles M. Glenn, Greensborough.  
 " S. W. Stevenson, Mooresville.  
 " W. J. Gilbert, Wayne County.  
 " D. M. Prince, Laurel Hill, Richmond County.  
 " H. T. Trantham, Salisbury.  
 " W. F. Cook, Guilford County.  
 " C. E. Bradsher, Hurdle's Mills, Person County.  
 " E. A. Speed, Person County.  
 " James M. Covington, Rockingham.  
 " H. W. Lee, Raleigh.  
 " J. A. Sexton, Raleigh.  
 " W. L. Abernethy, Hickory, Catawba County.  
 " Cornelius L. Battle, Rocky Mount.  
 " J. C. Walton, Caswell County.  
 " H. F. Burgin, Marion, Buncombe County.  
 " R. H. Hargrave, Robersonville, Martin County.  
 " T. E. Anderson, Statesville.  
 " Hubert Haywood, Raleigh.  
 " Turner E. Balsley, Greensborough.  
 " S. B. Jones, Charlotte.  
 " Edward Lindsay, Greensborough.  
 " O. P. Robinson, Fayetteville.  
 " W. P. Mercer, Wilson County.  
 " J. J. Cox, Guilford County.  
 " W. R. Hollinsworth, Mt. Airy, Surry County.  
 " A. D. McDonald, Wilmington.  
 " J. M. Baker, Tarborough.  
 " R. A. Freeman, Alamance County.  
 " J. L. Gunn, Yanceyville, Caswell County.  
 " C. A. Swindell, Greenville, Pitt County.  
 " W. G. Stafford, Orange County.  
 " N. Mc. Johnson, Durham.  
 " J. T. Winston, Youngsville, Franklin County.  
 " J. T. Sledge, Middleburg, Warren County.  
 " B. G. Harris, Guilford County.

Signed,

HENRY T. BAXSON, M. D.,

Secretary Board Med. Examiners of North Carolina.

SALEM, N. C., June 2d, 1879.

The Board of Medical Examiners of the State of North Carolina will hold its next session in Wilmington, on Monday before the 2d Tuesday in May, 1880. The following is the order of examinations :

*Surgery*.—Dr. P. E. Hines.

*Physiology*.—Dr. T. D. Haigh.

*Practice of Medicine and Pathology*.—Dr. R. I. Hicks.

*Obstetrics, &c.*—Dr. Joseph Graham.

*Materia Medica and Therapeutics*.—Dr. Thomas F. Wood.

*Chemistry and Pharmacy*.—Dr. G. L. Kirby.

*Anatomy*.—Dr. H. T. Bahmson.

HENRY T. BAHMSON,

Secretary Board Med. Examiners of North Carolina.

SALEM, N. C., June 2d, 1879.

## MEETING OF ORGANIZATION OF THE NORTH CAROLINA BOARD OF HEALTH.

The North Carolina Board of Health met in the McAdoo house, Greensborough, May 21st, 1879, for the purpose of organizing.

Present : Drs. M. Whitehead, Salisbury ; R. L. Payne, Lexington ; George A. Foote, Warrenton ; S. S. Satchwell, Rocky Point ; C. J. O'Hagan, Greenville ; A. R. Ledoux, Ph. D., Chapel Hill ; Dr. Thomas F. Wood, Wilmington.

Dr. M. Whitehead, was called to the chair.

The ballot for officers resulted as follows : For President, Dr. S. S. Satchwell, received 4 votes, and Dr. M. Whitehead 2 votes.

Dr. Satchwell was declared elected President to serve two years.

For Secretary and Treasurer, Dr. Thomas F. Wood, received 6 votes. Dr. Wood was declared elected Secretary and Treasurer to serve six years.

The following resolution was introduced by Prof. A. R. Ledoux :

*Resolved*, That the execution of the Board of Health Law be entrusted to the Secretary,—the details of its provision being under his management,—and that the Secretary make his report to the next meeting of the Board. Carried.

Upon motion of Professor Ledoux, a committee was appointed to confer with the Department of Agriculture, to make arrangements for the chemical investigations by this Board.

The President appointed Dr. Thomas F. Wood, Dr. George A. Foote, and Prof. A. R. Ledoux.

Names of the members of the North Carolina Board of Health.

S. S. Satchwell, M. D., President, Rocky Point, Pender County.

M. Whitehead, M. D., Salisbury.

C. J. O'Hagan, M. D., Greenville.

R. L. Payne, M. D., Lexington.

Geo. A. Foote, M. D., Warrenton.

Thomas F. Wood, M. D., Secretary, Wilmington.

Prof. A. R. Ledoux, Chemist, Chapel Hill;

Major William Cain, Engineer, Charlotte.

Henry G. Woodfin, M. D.; Franklin, Macon County.

Board adjourned to meet in Wilmington, N. C., on the 2d Tuesday in May, 1879.

THOMAS F. WOOD, M. D.,  
Secretary.

## NOTICE TO CONTRIBUTORS AT THE GREENSBOROUGH MEETING OF THE MEDICAL SOCIETY.

All papers referred to the Committee on Publication must be sent promptly to Dr. Thomas F. Wood, Wilmington, *in the next thirty days*, or they will be omitted from the Transactions.

*New Process for Sulphurous Acid.*—M. Pictet, of Geneva, has given a new process for the manufacture on a large scale of sulphurous acid, which consists in pouring sulphuric acid, drop by drop, on sulphur heated to from 572°–662° F.



# AMERICAN MEDICAL ASSOCIATION.

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## THIRTIETH ANNUAL MEETING IN ATLANTA, GA.

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### AFTERNOON MEETINGS—FIRST DAY.

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ATLANTA, May 6th. 1879.

(*Concluded from page 354*).

#### SECTIONS 4 AND 5.

The fourth Section of the Association consists of two of the former Sections, namely: that on Medical Jurisprudence, Chemistry and Psychology and that on State Medicine and Hygiene. These two departments were consolidated at the morning session of the Association and the fusion was called Section 4.

The new Section met at 3 o'clock in the room of the President of the Senate. Section called to order by Dr. J. T. Reeve, of Wisconsin, the Secretary, who announced that owing to the temporary illness of Dr. John S. Billings he could not be present. It was, therefore, necessary to appoint a Chairman for the session of the Section for the afternoon.

On motion of Dr. E. L. Griffin, Dr. J. L. Cabell was unanimously elected Chairman.

Dr. A. N. Bell announced that by the vote taken in the American Medical Association in the morning, the two Sections above named had been consolidated. He also announced the death of Dr. Wm. N. Compton, the former Chairman of the Section on Medical Jurisprudence.

Dr. Grissom, of North Carolina, paid an eloquent tribute to the memory and virtues of the deceased doctor who had died a sacrifice to the yellow fever epidemic, in which he had nobly labored for his fellow-men.

The Chairman appointed as a committee to prepare proper resolutions on the death of this esteemed physician, Dr. Grissom, of North Carolina, and Dr. Toner, of Washington City.

The first paper presented to the Section was by Dr. H. A. Johnson, of Illinois. It was on the subject of the regulation of Medical

Practice by State Boards, as exemplified in Illinois. The paper was a full exposition of the thorough reform effected under the provisions of the new law. The thorough acquaintance of Dr. Johnson with the practical workings of this system made his paper of great value as a medical document. The paper was received with the thanks of the Section.

Several of the members of the Section asked questions as to how the present law in Illinois worked.

Dr. Rauch, of Chicago, spoke fully of the success of the present system of regulation in Illinois, and the good it had accomplished to the people generally as well as to the profession in elevating its grade.

Dr. Gihon, of the United States army, believed in the thorough regulation of the practice by the State in such a manner as to prevent quacks from imposing on the public simply because they could show a diploma.

The discussion on the question was protracted, and numerous inquiries were made. But for the brief space we are compelled to allow each Section a most interesting report of the proceedings of this department would be given.

Dr. S. E. Chaillé, of New Orleans, read an exhaustive paper on State Medicine and State Medical Societies which held close attention and created an impression by its logical analysis of the question suggested. The paper was a masterly plea for State Medicine and its systemization as the only means by which the Government could perform its high duties to its people.

Dr. Bell moved that a vote of thanks be returned to the author of the paper. He spoke in very high commendation of it and moved its reference to the general session.

The next paper was a very scientific thesis on psycho-physiological hand, by Dr. E. Seguin, of New York. It was exceedingly interesting and was closely attended by the joint Section. The theory of the paper was that in cases of idiots all education of intellect must begin by education of the senses. He gave a most interesting case of education of an idiot by a Miss Meade in New York.

The Section adjourned to this afternoon at 3 o'clock, when it met in Concordia hall.

## THE SIXTH SECTION.

The Ophthalmology Section met in the finance chamber of the Senate at 3 P. M., Dr. H. Knapp, of New York, presiding. In the absence of the Secretary Dr. Scott, of Cleveland, Dr. Calhoun, of Atlanta, was elected Secretary pro. tem. First in the order of business was the election of Dr. E. Williams, of Cincinnati, as Honorary President, and Dr. B. A. Pope, of New York, Vice-President.

The first paper was read by Dr. Williams : subject, "Ivory Bony Tumor of the Socket of the Eye."

Dr. Voorhees, of Memphis, then read an interesting paper "On a Case of Great Impairment of Sight, Produced by Poisonous Effects of Excessive Doses of Quinine."

The third and fourth papers by Dr. Knapp consisted of microscopic demonstrations and remarks on a large tumor (sarcoma) of the acoustic nerve from the practice of Dr. Stephens, of Albany, New York ; and secondly, of a degeneration of the iris and ciliary body probably of a tubercules and syphilitic nature.

The meeting was concluded by an extensive discussion on the symptoms, the course and treatment of the syphilitic diseases of the cornea. Adjourned to 3 o'clock to-morrow.

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SECOND DAY—MORNING SESSION.

ATLANTA, May 7th, 1879.

The Association re-convened at 9½ o'clock to-day, and was called to order by Vice-President Murphy. There was a full attendance in spite of the rain. Communications from the Committee on Arrangements were in order and several announcements were made.

A communication against the abolition of the duty on quinine created some sensation. There were cries of no ! no !

The communication was tabled, and, on motion of Dr. Roberts, of Nashville, the Association reiterated its request that Congress remove the duty from quinine. There were some nays but the ayes had it. The next business was the address of Dr. Thomas F. Rochester, of Buffalo, N. Y., Chairman of the Section on the Practice of Medicine. The paper was a very able and exhaustive

discussion of a subject whose importance cannot well be exaggerated. The author's style was so clear, his research so large, and his thoughts so fresh that the the paper he offered will rank among the best of the long list which will come up at this session. Dr. Atkinson, of Philadelphia, moved that the address just read be referred to its appropriate Section of Practical Medicine.

An amendment that portions of the paper referring to typhoid and yellow fevers be referred to the Section on State Medicine was lost.

The original motion was adopted.

An address by Dr. John S. Billings, of Washington, was next in order, but President Parvin stated, with regret, that Dr. Billings was too unwell to read his own paper, but that it would be presented by Dr. J. J. Woodward, of the United States army. The paper was on State Medicine. It was a masterly treatment of a subject whose importance is just beginning to loom before the public. It explained fully the philosophy of the National Board of Health, and as it came from one of its leading members was heard with great interest. The necessity for a national quarantine and its advantages were fully expounded.

The paper was referred to the Section on State Medicine and a copy asked for publication.

Dr. N. S. Davis, of Chicago, made a report from a special committee on questions discussed by President T. G. Richardson in his annual address of last year, which was received. They favored the amendments proposed for the present rules on prize essays. They recommended the expunging from Section 3 all relating to prize essays and to insert a clause declaring that there shall be four prizes of \$250 for the best original contributions to medical knowledge. The Chairmen of the Sections on Practical Medicine, on Obstetrics, and Surgery and Anatomy, on State Medicine, shall take charge of the competition and arrange its methods. The report was to lie over for action until next year under the rule.

It was received and the committee discharged.

The Secretary announced a number of new arrivals since yesterday, as follows :

Georgia—T. O. Powell, Milledgeville; J. R. Humphries, Acworth; George C. Dugas, Augusta; A. W. Griggs, West Point; K. P.

Moore, Forsyth; W. N. Hollifield, Sandersville; Robert C. Eve, Augusta; J. G. Thomas, Savannah.

Tennessee—A. Blitz, John B. W. Nowlin, Nashville.

Mississippi—B. F. Ward, Winona.

Missouri—George Homer, St. Louis.

Alabama—W. W. Bledsoe, Union Springs; George A. Pritchett, Haynesville, Notasulgo; C. H. Fort, Tuskegee; Wm. O. Baldwin, W. C. Jackson, R. F. Michel, W. G. Bibb, Montgomery; J. M. Collier, Troy.

Ohio—Cyrus F. Alconer, Hamilton.

Indiana—James P. Orr, Rushville; J. R. Adams, Petersburg.

Louisiana—J. J. Lyons, New Orleans.

California—R. B. Cole, San Francisco.

Minnesota—S. C. McCormick, Duluth.

North Carolina—J. C. Walker, Wilmington.

Illinois—J. W. Dora, Maltoon.

The next business was the consideration of proposed plans of of change in the plan of organization. The first was an amendment declaring that the Committee on Nominations should hereafter select the nominees only from those members of the Association present.

A motion to table this amendment was made.

The President stated that only delegates were voters. Permanent members and visiting members were not voters. A rising vote was called for. The yeas on the motion to table were 120, and the nays 5. [Laughter].

Dr. H. Hitchcock offered an amendment prescribing the method in which the choice of officers should be made and enlarging the scope of nominating powers of the committee.

Dr. Reynolds, of Louisville, said the amendment applied an imputation on the fairness of the previous methods of the Association, and it was tabled.

An amendment by Dr. Caldwell, of Maryland, to create a new Section, was tabled. An amendment offered by Dr. Maddox to create a new Section on Genital and Urinary Organs was read. A motion to table it was made and a rising vote on it asked. The yeas were 73 and the nays 18. Applause. The amendment then came up for discussion. Dr. Davis said there was danger of

making many sections which would not attract enough attention to make them interesting. But two sections had been consolidated yesterday and he favored the trial of the new section proposed. If it did not work well it could easily be discontinued. He did not like the idea of some men in going about from section to section to try and imbibe all without imparting anything.

Dr. Brown, of Texas, said the Sections had too many long papers, and were not made as interesting or as useful as they might be.

It was moved that the amendment be referred to the Section on Surgery, with request that it report to the Association to-day. Agreed to.

Dr. N. S. Davis, of Chicago, offered an amendment to the Code of Ethics, declaring it to be against the ethics of the profession for any physician to teach or encourage any student of an irregular or exclusive system of medicine.

Dr. E. S. Dunster, of Ann Arbor, spoke in opposition to the amendment. He said he had no personal motive in opposing it or by any desire to shelter himself from the responsibility of any past teaching. He said he wished to remain in the Association, but not even membership would be a fitting price for the abandonment of scientific convictions. He feared the amendment would bring dishonor and disaster on the profession. The Code says medicine is a liberal profession, but this amendment makes it close and exclusive. The whole spirit of the amendment is opposed to the broad principles of true science. He attacked the amendment on various grounds. Said it was impossible to enforce such a statute. It would be a dead-letter law, a reproach to the wisdom of the body that enacted it. A thorough enforcement of this law would close every clinic in the land. In nearly every clinic in large cities are found homœopathic students. He said in the leading homœopathic colleges text books by leading allopaths are freely used. This is teaching the students of an "irregular" system, as it is called, and you can't help it. Legally, the amendment will be futile. If the student of an irregular system, as it is called, were to apply to a State school and be refused, he could obtain a mandamus in any State of this Union to give him an entrance and provide him tuition. What is the use of setting up limitations which cannot be carried out? He argued also on the merits of the question. It is based

on an assumption of a most fallacious character. It assumes that the teaching of the students of irregular systems will tend to build up these systems. This is folly. It declares that the teachings of science leads to error—a proposition which no man in his senses will give his endorsement. Such a principle carried out would prevent a minister of Christ from preaching the gospel when there were atheists or sinners in his congregation. History has to-night nothing plainer than that truth is the antidote and finally the victor of error. The argument was not only masterly in its logic, but was marked throughout by a liberality of view which is the honor of a true scientific man. Said he: "If national medicine cannot triumph in such a contest she deserves to fall and be buried in dishonor." [Applause.]

[The argument of which the above is only an incomplete sketch, gives but a faint idea of this, the most masterly paper of the session.—Eps.]

Dr. Dudley Reynolds moved to lay the amendment on the table, as he said the amendment had been killed.

A member appealed for free discussion on both sides. A voice: "The gentleman who moved to table the motion, only a moment ago, was for free discussion." [Laughter]. The motion to table was withdrawn.

Dr. Davis said he did not wish to discuss the matter, but he would state the reasons which led to the report which proposed the amendment. The Association took steps which made the amendment a necessary result of its action. The judicial council, as a committee, was ordered to report just such a clause. The amendment was the best that could be done. It did not follow that the committee favored the amendment. He said it would be repugnant to him to teach students of an irregular college who merely came in to catch what they could of his teaching. He admitted that there was a line beyond which the Code of Ethics could not be carried without coming in contact with State and municipal laws. Dr. Davis' remarks were sound and fell upon attentive ears.

Dr. Pratt said the argument against the amendment was specious. It was the argument of those who wanted to make money by teaching irregular pupils and be considered ethical, while practitioners are considered non-ethical if they associate with such pupils after they

become practitioners. He moved that the proposed amendment lie on the table until next year.

Dr. Brodie, of Detroit, moved to lay that motion on the table. The vote was taken by rising. The yeas were 12 and the nays 122, so Dr. Brodie's motion was lost. The announcement was received with applause. The motion to table until next year was carried.

The roll of States was called for the purpose of allowing delegations to choose places where they would meet to choose members of nominating committee.

After this was done the Association adjourned until to-morrow morning at 9:30 o'clock.

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#### THE FIRST SECTION.

Practice of Medicine, Materia Medica and Physiology—Dr. Thos. F. Rochester, Buffalo, N. Y., Chairman; Dr. W. C. Glasgow, St. Louis, Missouri, Secretary.

The Section was called to order at 3 o'clock by the Chairman.

The paper of Dr. Denison, of Colorado, the reading of which was postponed from Tuesday's session, was ordered read.

Dr. Denison not being present, Dr. Davis, of Chicago, read the paper. Subject, "Aero-Hygienics of Elevation above the Level of the Sea," with conclusions.

The paper was a very long one, and before Dr. Davis had half finished the reading he was informed by the Chairman that his time was out.

On motion Dr. Davis was allowed time to read the conclusions.

Dr. O'Reiley, of New Orleans moved that the paper be received, and referred to the Committee on Publication.

This motion was objected to by Dr. —, of Mississippi, who said he thought if the paper was secured and referred it would seem that the Association accorded with Dr. Denison's views as expressed in the paper.

Dr. Davis, of Chicago, said he could see no reason why the paper should not be received and referred. That it contained valuable facts that were well worthy of publication, and it should be published.

The motion to refer it to the committee was then passed.



Dr. Denison asked that the Section recommend the signal service bureau to prepare charts to be published with his paper.

On motion of Dr. O'Reiley, of New Orleans, the recommendation was granted.

The paper of Dr. L. D. Bulkley, of New York, "on the use of water in the treatment of diseases," being in order was then presented, and read by Dr. Bulkley in clear and forcible style.

Dr. Hopkins, of Georgia, moved that the paper be received and referred to the Committee on Publication.

The paper was discussed by Dr. Porcher, of Charleston, South Carolina, and Dr. Shoemaker, of Philadelphia. The motion to refer was carried.

The address of Dr. Thomas F. Rochester before the general council was referred to this Section and was here presented to the Section by the Secretary.

Dr. Rochester called Dr. Lester to the chair.

Dr. Hopkins, of Georgia, moved that the address be received and referred to the Committee on Publication.

This brought out quite a discussion, which was engaged in by Dr. Lyon, of New Orleans; Dr. Porcher, of Charleston; Dr. Banks, of Griffin, Ga.; Dr. O'Reily, of New Orleans; Dr. Rochester, of Buffalo, and Dr. Foreman, of the army.

The address of Dr. Rochester was in favor of a national quarantine as a preventative of yellow fever.

Dr. Lyon, of New Orleans, said that the treatment of yellow fever was as well understood as the treatment of any other serious disease. That yellow fever does originate in New Orleans, and that there is never a year that there is not yellow fever in that city that originates there. Dr. Lyon contends that quarantine laws do no good, and as proof he says that during the late war, when there was not and could not be any communication between New Orleans and the West Indies there was not a single year but what there were cases of yellow fever in New Orleans.

He contends that the disease is not contagious, and that it will in future, as it has done in the past, continue to originate in that city. He believes in local sanitary measures instead of the quarantine.

Dr. Hopkins, of Georgia, agreed with Dr. Lyon that yellow fever was of local origin, and that quarantine regulations were useless in preventing the disease.

Dr. Dowell, of Texas, asked Dr. Lyon if quarantine did not keep the fever out of Texas. Dr. Lyon replied that it did not, and asked the gentleman why it did not keep it out of Jackson, Mississippi, which was surrounded by men armed with shot guns.

The question was not answered.

Dr. DeRoualdes, of New Orleans, said that in a large majority of years yellow fever will originate in New Orleans. He believes that proper sanitary measures will prevent epidemics in that city. He does not favor a national quarantine law.

Dr. Rochester said that he had not treated a case of yellow fever in twenty-eight years. That he did not doubt but what there were occasional cases occurring sporadic in New Orleans, but that he believed that the quarantine would prevent the terrible epidemics.

Dr. Foreman, of the army, said that while the fever might originate in New Orleans there were cities where it did not originate, and we needed quarantine against such places as the fever originated in.

The motion to refer the paper was carried.

There being no other business before the Association, it adjourned to meet in the Opera House at 3 o'clock to-morrow afternoon.

The reporter is under obligations to the Secretary for favors shown him.

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#### THE SECOND SECTION.

Section 2—Obstetrics and Diseases of Women, met at 3 P. M. ; called to order by the Chairman, Dr. E. S. Lewis.

Minutes of last meeting were read and adopted.

The new gynæcological table devised by Dr. Chadwick, of Boston, was presented by Dr. Marey, of Massachusetts. The doctor explained the working of the table to the entire satisfaction of all present.

The reading of papers being in order the Chairman read the paper of Dr. E. Cutter, of Massachusetts, (the author being absent), on: "The Treatment of Uterine Displacements by the Stem Pessary."

Next in order was Dr. E. B. Turnipseed, of South Carolina, on: "New Instrument for Operation for Vesico-Vaginal Fistula, with

cases. The instrument when complete embraces the following: new self-retaining speculum; retractors; large apparatus (used in stitching) bearing a smaller comb-shaped apparatus set with needles, which are clamped when the operation is completed. Curved needles, gold triple plated with hard rubber clamps, with springs. Trimmers, dilators on the principle of changeable valves, and a hystera-tome.

On motion of Dr. Albert Smith, of Philadelphia, the thanks and appreciation of the Section were expressed to Dr. Turnipseed for his industry and mechanical genius.

The next paper in order was that of Dr. E. Cutter, of Massachusetts, postponed from last meeting. This paper was read by Dr. Dunster, of Michigan, the subject being the "Electrolysis of Fibroids." This was a highly interesting and very able paper, and, on motion, was referred to the Committee on Publication.

On motion, Dr. Pallen, of New York, presented large drawings of a lacerated perineum, and from these he demonstrated his mode of operating. He also spoke of the operation of amputation of the cervix, or as he proposes to call it, vagino-cervi-plasty, for the cure, as we may say in general, sterility. Dr. Pallen is one of the prominent figures in this Section, and at the conclusion of his remarks was greeted with immense applause.

The Chairman appointed as a committee to examine the papers presented to the Section, Drs. Dunster, of Michigan; Smith, of Pennsylvania; and Cross, of Arkansas.

On motion of Dr. Beverly Cole, of California, the Society adjourned until to-morrow at 3 P. M.

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#### THE THIRD SECTION.

Surgery and Anatomy.

Called to order by the Chairman, Dr. Moses Gunn.

Minutes of last meeting were read by the Secretary and were approved.

The reading of papers being next in order, Dr. J. N. Quinby, of New Jersey, read a paper describing a case of conservative surgery.

Dr. Louis A. Sayre, of New York, read a paper "On the proof of the value of the treatment of Spondylitis or Potts' disease by

suspension and retention in the improved position by the plaster-of-Paris bandage." The paper was discussed by Drs. A. C. Post, of New York; H. O. Marey, of New York; E. H. Dugas, of Augusta, Ga.; Quinby, of New Jersey; Byrd, of Illinois; McGraw, of Michigan. Dr. Sayre concluded it.

Dr. Maddux, of Maryland, moved that the thanks of this Section be tendered Dr. Sayre, which was agreed to.

The paper was very interesting, because it showed what advancement had been made in curing cases that was considered not curable. Dr. Sayre was invited to apply his plaster-of-Paris jacket before this Section to-morrow evening which he has promised to do.

The next paper was read by Dr. J. E. Link, of Indiana, "On Amputations by Open Cone-Shaped Method." The following gentlemen participated in discussing it:

Drs. Beck, of Ohio; H. O. Marey, of New York; Bird, of Illinois; Quinby, of New York; Garcelon, of Maine; Fuller, of —; concluded by Link, of Indiana.

The next paper was read by Dr. H. F. Campbell, of Augusta, Ga., "On Urinary Calculus, with Consideration of its Hygienic, Etiological, Pathological and Surgical Relation; with 46 cases." It was discussed by Drs. Dawson and Mussey, of Cincinnati, Ohio, and Dowell, of Texas.

The further discussion was postponed until to-morrow evening after the regular business.

Adjourned to meet at 3 o'clock to-morrow evening.

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#### THE FOURTH SECTION.

The fourth Section, consisting of the Sections on Medical Jurisprudence and State Medicine, met at 3 o'clock in the Concordia hall on Marietta street.

Dr. Cabell, of Virginia, who had presided over the meeting of this Section the previous evening, was, on motion, elected Chairman of the Section during Dr. Billings' sickness.

Dr. Grissom, of North Carolina, presented a report from the committee appointed to draw a fitting memorial on the death of Dr. Compton, of Mississippi. The memorial was a beautiful tribute to the memory of the good and gifted man of whom they spoke. The report was signed by Drs. Grissom, Toner and Pratt.

The memorial concluded with resolutions expressive of the regret of the Section at the untimely death of this distinguished Mississippian, and declaring that his memory will be cherished with the virtues of his life presented.

Dr. Taylor, of Kentucky, asked the honor of moving the adoption of the resolutions.

Dr. Browning, of Mississippi, seconded the motion, and the resolutions were adopted.

The first business was that relating to State Medicine. A paper was expected from Dr. J. N. DeHart, of New Jersey, but he was absent.

A paper on "The New Principles of Protective Sanitation in its Relation to Public Hygiene," by Dr. H. R. Storer, of Rhode Island, was next in order. The author was absent, but his paper was read to the Section by Dr. E. S. Dunster, of Ann Arbor, Michigan. It occupied about thirty minutes and held close attention. It was full of historical knowledge and sound suggestions of true sanitary policy.

The paper was referred to Committee on Publication.

A report by Dr. R. J. O'Sullivan, of New York, on intervention of physicians in education was expected by the Section, but the doctor and his paper were both absent.

The consideration of the address of Dr. Billings, Chairman of the Section, who was kept away by sickness, was tabled until tomorrow, when it is hoped Dr. Billings will be well.

Dr. E. Seguin, of New York, made some remarks on the intervention of physicians in education, the subject of which Dr. O'Sullivan had been expected to treat. His views were forcibly put, and were heard with attention by all.

It was moved that Dr. Seguin be requested to commit his remarks to writing for the future consideration of the Section.

Dr. Bell said the more orderly way would be to let Dr. O'Sullivan's paper come up, and Dr. Seguin could then give the Section the benefit of his wisdom. The motion was withdrawn.

The Section took up some resolutions offered by Dr. Billings, that the American Medical Association recommend that every physician aid the Superintendent of the census in his efforts to make up his statistics of mortality. That every physician make a record

of all his cases from the first of June. Every physician in the United States will be furnished with blanks for filling out the reports asked. The resolutions were adopted.

Resolutions on the organization of the profession in all States were read. It was proposed to organize all members of the profession in good standing into County organizations. The Section gave its approval to such a course wherever it may be deemed necessary.

The Section then adjourned to 3 o'clock to-morrow evening.

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#### THE SIXTH SECTION.

The Section on Ophthalmology held two sessions yesterday—from 9 to 11 A. M., and from 3 to 6 P. M., Dr. H. Knapp occupied the chair. The principal object of discussion was "The Operation for Cataract" on which extensive papers were read by Drs. Pope, Calhoun and Knapp. In the discussion about twelve members took an active part. A paper was presented by Dr. Reynolds, of Louisville, "On the Operative Cure of Cystoid Cicatrix." Dr. Smith, of Detroit, read a paper "On the Operative Cure of Xerophthalmia." In conclusion, Dr. Knapp presented two anatomical specimens, the one with plastic cyclitis, the other with a chip of brass lying in the ciliary body and gave a brief history of the cases to which the specimens referred.

The Section adjourned to meet at 9 o'clock to-morrow morning.

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#### THIRD DAY.

ATLANTA, May 8th, 1879.

Promptly at half-past 9 o'clock the Association met in the Opera House, President Parvin in the chair.

The Secretary announced several communications from the Committee on Arrangements relative to the banquet of last night, the excursion to Augusta, and other points of interest to the members.

#### REPORTS

were next in order and the following were offered :

Dr. N. S. Davis, of Chicago, offered a brief but pointed report on Ozone, which was referred to the Committee on Publication.

The report on Necrology was presented by ex-President J. M. Toner, of Washington, the Chairman of the Committee.

The report on Sanitaria for Consumptives was to have been presented by Dr. H. I. Bowditch, of Boston, but he was absent and the report was postponed.

The report on the Catalogue of the National Library, by Dr. H. C. Wood, of Pennsylvania, was received. It stated that Congress had been induced at last to publish two volumes of the Index Catalogue.

Dr. Woodward, of the army, thanked the Association for the warm support it had given his colleague, Dr. Billings, in his efforts to complete a great and necessary work. The report was referred to the Committee on Publication.

Dr. Atkinson, the Secretary, presented the report of the Committee on Publication, which stated the entire work of that Committee for the past year. The report was received and disposed of as those above.

The Treasurer's report was next read and referred to the Committee on Publication.

The Librarian's report was also read and referred to the same committee.

The next business in order was the presentation of a paper on State Medicine which Dr. Chaillé, of New Orleans, had read in the Section of State Medicine Tuesday afternoon. The paper took such a philosophical view of a great question that the Section ordered it referred to the Association. Dr. Chaillé's views are along with the most advanced theories on this subject. He appealed for the thorough establishment of a sound system of State Medicine, in which the general government should regulate without interfering with any necessary powers of the State. He argued that it lay in the power of the American Medical Association to effect the reforms needed in the present condition of State Medicine. In England State Medicine is easily and judiciously regulated by the influence of the British Medical Association on one central legislative power, while in America this power must be frittered away on the local Legislatures of forty-eight States and Territories. He argued for a more permanent organization in minor Medical Societies and the consequent increased efficacy of the American Medical

Association. His views of the powers of general government over medical matters both as related to sanitary and moral questions were very strong and to some may have appeared radical. The thorough study which Dr. Chaillé has given this question and his known liberality of views on all subjects make it certain that in this paper he does not go to any extreme which prudence would disapprove, nor did he advocate any principle by reasons which are not in sympathy with the general opinion of the most learned and most patriotic men of our day and nation. The paper was pregnant with theoretic principles strengthened by sound practical suggestions. It was really one of the most practical papers of all the long list which will come up at this session, and its reading in the Section started a series of discussions on its propositions which its presentation to the Association will bring into much fuller view. The paper was referred back to the Section where it had been first presented.

The President—The hour has arrived for the address of Dr. Moses Gunn, of Chicago, Chairman of the Section on Surgery and Anatomy.

The doctor delivered an address worthy of his high position in the profession. Though the paper was long it held the closest attention of the entire Association. The paper treated of pus in a most scientific manner. It gave the most advanced theories on the question and discoveries of the true nature of pus in all of its various exhibitions. There were many valuable suggestions in the paper, and they were put with beautiful clearness.

The paper was referred to the Section on Surgery.

#### NOMINATIONS.

Dr. S. D. Gross, of Philadelphia announced that the Committee on Nominations was ready to report. The following report was then received through the Secretary of the Committee, Dr. Eugene Grissom, of North Carolina.

#### REPORT ON NOMINATIONS.

The Committee on Nominations presented the following nominations :

President—Dr. Lewis A. Sayre, of New York.

Vice-Presidents—

First—Dr. R. Beverly Cole, of California.



Second—Dr. E. M. Hunt, of New Jersey.

Third—Dr. H. O. Marcy, of Massachusetts.

Fourth—Dr. F. Peyre Porcher, of South Carolina.

Treasurer—Dr. R. J. Dunglinson, of Pennsylvania.

Librarian—Dr. William Lee, of District of Columbia.

Committee on Library—Dr. Johnson Eliot, of District of Columbia.

Assistant Secretary—Dr. Walter Gillette, of New York.

Next place of meeting—New York.

Time of meeting—Not yet fixed.

Committee of Arrangements—Drs. S. O. Vanderpoel, Stephen Smith, William M. Polk, Robert Weir, Charles I. Pardee, A. A. Smith, T. F. Sabine, of New York ; Joseph Hutchison, of Brooklyn ; M. H. Burton, of Troy ; and Parker, of Poughkeepsie.

Committee on Prize Essays—Not yet appointed.

Committee on Publication—Drs. W. R. Atkinson, T. M. Dugdale, A. Fricke, S. D. Gross, Caspar Wisar, R. J. Dunglinson, of Pennsylvania ; and William Lee, of District of Columbia.

The following nominations for Chairmen and Secretaries of Sections of 1880 are reported :

First—Practice of Medicine, etc—Dr. J. S. Lynch, of Maryland, Chairman ; Dr. W. C. Glasgow, of Missouri, Secretary.

Second—Obstetrics, etc—Dr. Albert Smith, of Pennsylvania, Chairman ; Dr. Robert Battey, of Georgia, Secretary.

Third—Surgery and Anatomy—Dr. W. T. Briggs, of Tennessee, Chairman ; Dr. J. Powell Adams, of Minnesota, Secretary.

Fourth—State Medicine, Medical Jurisprudence, etc—Dr. Jas. F. Hibberd, of Indiana, Chairman ; Dr. Thomas F. Wood, of North Carolina, Secretary.

Fifth—Ophthalmology, etc—Dr. Bolling A. Pope, of Louisiana, Chairman ; Dr. Eugene Smith, of Michigan, Secretary.

Committee on Necrology—Dr. J. M. Toner, of District of Columbia, Chairman ; Drs. B. F. Mitchell, of Alabama ; J. P. Wall, of Florida ; F. W. Hatch, of California ; J. B. Cummings, of Arkansas ; C. Denison, of Colorado ; G. W. Russell, of Connecticut ; J. H. Richards, of Delaware ; T. S. Hopkins, of Georgia ; J. H. Hollister, of Illinois ; G. L. Sutton, of Indiana ; H. B. Ransom, of Iowa ; C. V. Mottrom, of Kansas ; Dudley S. Reynolds, of

Kentucky ; E. A. Lewis, of Louisiana ; E. F. Sanger, of Maine ; John Morrison, of Maryland ; L. F. Warner, of Massachusetts ; G. E. Barney, of Michigan ; D. W. Hand, of Minnesota ; John Browning, of Mississippi ; J. M. Richmond, of Missouri ; J. R. Black, of Nebraska ; L. S. Hill, of New Hampshire ; H. D. Didama, of New York ; John Blaine, of New Jersey ; E. J. Haywood, Jr., of North Carolina ; Starling Loving, of Ohio ; Frank Woodbury, of Pennsylvania ; C. H. Fisher, of Rhode Island ; Manning Simmons, of South Carolina ; J. B. Lindsay, of Tennessee ; H. W. Brown, of Texas ; O. F. Fassett, of Vermont ; L. J. Joynes, of Virginia ; R. W. Hazlett, of West Virginia ; J. T. Reeve, of Wisconsin ; J. J. Woodward, of United States Army ; A. L. Guion, of United States Army.

A further report will be made later.

On motion, the report was received and the nominations were endorsed.

The next business was the reading of an address by Dr. E. F. Lewis, of New Orleans, Chairman of the Section on Obstetrics, etc. It was referred to Committee on Publication.

The next business was the consideration of Dr. Seguin's report on the Metric System. The doctor made a few remarks in support of his resolution. They are as follows :

1. That the American Medical Association adopts the International Metric System, and will use it in its transactions.
2. Requests that those who present papers at its future meetings employ this system in its communications or reprints thereof.
3. Requests the Medical Boards of the Hospitals and Dispensaries to adopt the metric system in prescribing and recording cases; and that the faculties of the Medical and Pharmaceutical schools adopt it in their didactic, clinical or dispensing departments.
4. Requests the physicians familiar with the metric system to help their confrères and the druggists in its application ; and the delegates present at this session to work up the acceptance of the metric system by their respective County and State Societies.
5. Requests our President to name a Metric Executive Committee, of which he shall be the ex-officio Chairman, and whose task will be to give unity and rapidity to this metric movement.

On motion they were adopted.

Dr. Chaillé, of New Orleans, offered a resolution that Congress be petitioned to allow any student of scientific pursuits to import free of duty any one book for his own use. Adopted.

Dr. Brodie, of Detroit, referred to judicial council a query as to the propriety of the use of patent medicines, and a resolution declaring such use against the Code of Ethics.

Some amendments were laid over until next year.

Association adjourned until to-morrow morning, 9 o'clock.

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#### FOURTH DAY.

ATLANTA, May 9th, 1879.

The Association met at 9:30 A. M., and was called to order by President Parvin.

Communications from the Committee of Arrangements were read.

Reports from all the five Sections were read.

A resolution passed by the Section on State Medicine, looking to the thorough organization of State Societies, and prescribing stricter rules for admission into the American Medical Association, was passed.

A communication from the California Medical Association, pressing the necessity of a national quarantine, was read and referred.

The President appointed the following committees :

To represent the Association abroad—Drs. Seguin, Yandell, Da Costa, Gunn, Turnbull, Warren, and J. T. Hodgson.

Delegates to Canadian Association—Dr. H. Hutchins, Dr. W. Brodie.

On Dr. Chaillé's resolution on Public Hygiene and its regulation by Congress—Drs. Pratt, Davis, Garcelon, Gross and Bell.

The Committee on Nominations reported their work complete, and presented the following report :—

Time of meeting—First Tuesday in June, 1880. Place—New York.

Committee on Prize Essays—Drs. Austin Flint, Chairman; Alfred C. Post, Joseph Hutchinson, J. W. S. Gouley, Montrose H. Pallen.

Members of Section on State Medicine, Public Hygiene, etc.—Drs. W. H. Hawkins, Arkansas; Jerome Cochrane, Alabama; W.

F. Cherry, California ; C. Dennison, Colorado ; C. A. Lindley, Connecticut ; Wm. Marshall, Delaware ; Thomas Antisell, District of Columbia ; J. P. Wall, Florida ; J. P. Logan, Georgia ; S. Brandeis, Kentucky ; S. E. Chaill , Louisiana ; A. P. Snow, Maine ; T. B. Evans, Maryland ; H. I. Bowditch, Massachusetts ; H. B. Baker, Michigan ; C. N. Hewitt, Minnesota ; Wirt Johnston, Mississippi ; H. H. Mudd, Missouri ; J. Black, Nebraska ; G. P. Com, New Hampshire ; D. O. English, New Jersey, A. N. Bell, New York ; J. C. Walker, North Carolina ; J. C. Reeve, Ohio ; H. Carpenter, Oregon ; Benjamin Lee, Pennsylvania ; E. M. Snow, Rhode Island ; R. A. Kinlock, South Carolina ; T. A. Achison, Tennessee ; H. W. Brown, Texas ; F. D. Cunningham, Virginia ; L. C. Butler, Vermont ; E. A. Hildreth, West Virginia ; J. T. Reeve, Wisconsin ; Joseph R. Smith, United States army.

The Committee also reported regulations for printing the proceedings of the Association and the deposit of its funds.

The address of Dr. Hermann Knapp, of New York, the Chairman of the Committee on Ophthalmology, was next in order. The address was referred to the Committee on Publication.

The Committee on Prize Essays reported only one essay for a prize. This was written by Dr. A. McLane Hamilton, of New York, and was on the subject of Primary and Secondary (local) Degeneration of the Lateral Columns of the Spinal Cord. The Committee highly commend the essay, and recommend that a prize of \$100 be awarded for it. An essay on "Explorations in Physiology" was highly commended, but the second prize was withheld.

Dr. N. S. Davis, of Chicago, said it gave him peculiar pleasure to offer one resolution. He then read a resolution of thanks.

The resolution was adopted by a unanimous rising vote of the Association.

The last business in order was the installment of the new officers.

Dr. Louis A. Sayre, of New York, the President elect, came forward, and Dr. Theophilus Parvin, of Indianapolis, the retiring President, addressed the body in a few well chosen words. He was followed by Dr. Sayre, and the meeting then adjourned.

## REVIEWS AND BOOK NOTICES.

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POTTS' DISEASE, ITS PATHOLOGY AND MECHANICAL TREATMENT, etc. By NEWTON M. SHAFFER, M. D., Surgeon in charge of the New York Orthopædic Dispensary. 12mo. Pp. 82. G. P. Putnam's Sons. 1879.

This is the substance of a paper by the author, read before the Medical Society of the County of New York.

It gives clearly and dispassionately, the views of one of the younger authorities in orthopædics.

He opposes the exclusive use of the plaster jacket, believing it to be applicable to diseases in the lower dorsal and upper lumbar vertebrae only, and in every respect inferior to the "antero-posterior support." He makes the following astonishing statement which is hardly complimentary to those to whom it refers: "Among the other teachers of general or orthopædic surgery in our colleges I have not succeeded in finding one who gives a systematic course of instruction upon the various complex mechanical indications to be met in the treatment of this insidiously progressive lesion."

He claims priority in teaching that reflex muscular spasm in chronic joint diseases always indicates osteitis," and that this spasm is due to pathological causes and is not conservative.

It is difficult to apply this theory in explanation of the common deformity of spondylitis, however in harmony it may be with the condition of those joints in which the spasm simulates fibrous ankylosis: for reflex spasm of the erectores spinæ and other spinal muscles, it would seem, would tend to produce lordosis rather than those posterior curves, which characterize Potts' disease—particularly when the lower dorsal and lumbar bones are the seat of the osteitis.

No one instructed in this disease can afford to be without Dr. Shaffer's book, for in it he has shown himself a complete master of the subject, and his able and impartial analysis of many of its vexed questions may cause some of us to ask ourselves whether an enthusiastic advocacy of other methods of treatment rather than their actual merit may not have led us to their adoption.

In literary execution, Dr. S's. work is in the main very good, but we notice a misuse of several words, such as *traumatism* for *wound*

or *mechanical injury ultimates* for *gives rise to*, etc. ; and there are one or two obscure passages which are real blemishes. Thus in speaking of the simplicity of his mode of treatment he writes :

“A country practitioner, with a village blacksmith (though this is not necessary) could treat any case successfully with a few practical hints, which would be materially strengthened, of course, by a clinical demonstration.”

We are glad to believe that few cases of Potts' disease present a more marked deformity than does this sentence ; and we trust that in a second edition (which will certainly be called for) Dr. S. will show that his ability to “straighten things up” applies as well to his writings as to his patients.

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A GUIDE TO THERAPEUTICS AND MATERIA MEDICA. By ROBERT FARQUHARSON, M. D. Second American edition revised by the author. Enlarged and adapted to the U. S. P., by FRANK WOODBURY, M. D. \$2.00. H. C. Lea. Philadelphia.

If there is any book on a medical subject more useful to the general practitioner than this one we have yet to learn of it. In our opinion, the student who has possessed himself of its contents is competent to enter upon the practice of his profession ; and the busy practitioner who keeps it close at hand may feel that in it he has a trustworthy and ready friend and guide to follow. The general arrangement is admirable, and everything useless or of doubtful value is omitted or receives a bare notice ; while those drugs which are thoroughly treated of their physiological and therapeutic actions conveniently displayed in parallel columns.

We shall not pretend to analyze the work, its full merits can only be made known by a personal examination. We particularly advise a study of the unanswered questions given (page 447 et seq.) for the consideration of the student, they are eminently suggestive. Dr. Woodbury has greatly added to the value of the book for American students, and in such an elegant, and skilful, and withal modest manner, that our interest in him and his own forthcoming Handbook of Practice is much enhanced.

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EPITOME OF SKIN DISEASES, with Formulæ, &c. By TILBURY FOX, M. D. H. C. Lea. 1879. \$1.38.

A condensed and clear summary which ought to do much towards

simplifying the terminology and settling disputed points in this branch of medicine. The chapters on "Modes of Observing Skin Diseases," "General Treatment," "Cutaneous Pharmacopœia," etc., will prove great help to the general practitioner in his studies in dermatology.

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A TREATISE ON THE DISEASES OF INFANCY AND CHILDREN. By J. LEWIS SMITH, M. D. Fourth Edition thoroughly revised. Pp. 758. H. C. Lea. 1879. Cloth \$4.50. Leather \$5.50.

Nine-tenths of the profession in America already draw their information upon Disease of Children from Dr. Smith's work. There is nothing to criticise adversely in it; like good wine it needs no praise; it is too extended to permit of anything like a recapitulation of its contents; and we feel that our duty towards our readers is best fulfilled by limiting our notice of the book to the simple mention that a new edition has appeared, revised and enlarged in many points; and containing the newest truths and doctrines in etiology, pathology and treatment.

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ON DISEASES OF THE ABDOMEN, etc. By S. O. HABERSHON, M. D. H. C. Lea. Philadelphia. 1879.

A new edition (the second American from the third English) of this standard work has just appeared. Its enlargement and revision and its value is much increased, and it is entitled to remain where it already is as the leading authority on abdominal affections.

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DISEASES OF THE THROAT AND NASAL CAVITIES. By CARL SEILER, M. D., etc. 12mo. Pp. 116. H. C. Lea. Philadelphia.

A convenient little handbook, clear, concise and accurate in its method, and admirably fulfilling its purpose of bringing the subject of which it treats within the comprehension of the general practitioner.

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We regret to learn of the death of Dr. John T. Darby, Professor of Surgery in the University of New York. Dr. Darby was from South Carolina, and enjoyed a wide reputation before being called to the professorship in New York.

## YOUR EARNEST ATTENTION IS ASKED

To the plan proposed by General Francis A. Walker, Superintendent of Census, for obtaining *vital statistics* for the year beginning June 1st, 1879, and ending May 31st, 1880. This plan was adopted at the suggestion of Dr. J. S. Billings, and was warmly endorsed by the American Medical Association at its late meeting in Atlanta.

A copy of a blank book is sent to every doctor in the United States whose name can be learned by the Superintendent of the Census, and it is earnestly urged upon physicians receiving these books to keep the record carefully and to comply with the printed directions found in the book.

To North Carolina doctors this will be all the easier to do, as similar work will be done by the County Boards of Health.

We regard this as a great opportunity to inaugurate a most useful work.

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CORRECTION.

Members not present or dead, but marked present.

R. B. Haywood, J. J. Summerell, J. A. Gibson, (dead) W. A. B. Norcom, J. W. Jones, C. W. Knight, William Little, J. H. Hieks, H. Otis Hyatt, J. L. Knight, S. B. Flowers, J. M. Hadley, Josh. W. Vick.

CHAS. DUFFY, JR., M. D.,

President Med. Society North Carolina.

L. J. PICÖT, M. D.,

Secretary Med. Society of North Carolina.

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The ceremonies of the unveiling of the monument to Dr. Ephraim McDowell, at Danville, Kentucky, in May, attracted a number of the most eminent men in the profession, and was a deserved honor to Dr. McDowell's memory.



## OBITUARY.

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W. W. WARD, M. D.

Dr. W. W. Ward, of Plymouth, N. C., died May 9th, after a confinement of near six months to his bed from organic disease of the liver; aged 62 years; has practiced medicine thirty-seven years. He was considered by the profession as one of the best therapeutist of eastern Carolina.

L. M. P.

We have known Dr. Ward for many years and our knowledge of him has been that which called from us not only respect for his abilities as a natural born physician; but also our admiration for his success in certain phases of medical practice. The fact was patent to everybody who paid any attention to the character and capabilities of a fellow-citizen, that he used every power he possessed to strengthen his mind to its utmost bent in the amelioration of others. He was heroic in practice, and whatever his hand touched was sure to yield him a reward in some way, and generally to the benefit of his patient.

He suffered from deafness for many years, but nothing daunted by this disease. He labored along the lines of his profession—striving in his own way—to help the sick and needy.

He toiled and suffered in behalf of others until his time came to lay down his armor. Then having served in his day and generation manfully, he went to his reward—the reward of earnest diligence and active benevolence. When the day shall come, which is to come to us all, he will receive from the Great Physician the crown of eternal life.

G. P.

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## TO OUR READERS.

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WEAKLY AND SICKLY PERSONS.

Many persons who are weak and sickly at this season of the year are at a loss to know what will restore their health. It has lately been found by experience that the use of Speer's Port Grape Wine is one of the best restoratives known. Physicians, clergymen and temperance advocates should encourage the use of Port Grape and thus aid the cause of temperance and moderation. It is especially recommended to families for its purity, exquisite flavor and healthy properties. Medical men certify to its valuable medicinal powers. Mr. Speer has been for years engaged in the raising of grapes and

perfecting this wine, and it requires a four years process before it is fit for market.—*N. Y. Baptist.*

Our druggists have procured some direct from the Vineyards. It is excellent for females, especially for those with nursing infants. Salesroom 34 Warren street, N. Y.

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## BOOKS AND PAMPHLETS RECEIVED.

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Report of the Director of the Bureau of Medical Service. International Exhibition, 1877.

Address on State Medicine and Medical Organizations. By Stanford E. Chaillé, M. D., New Orleans.

Normal Position and Movements of the Unimpregnated Uterus. By Ely Van de Warker, M. D., Syracuse, N. Y.

Further contributions to the Treatment of Lupus. By Henry G. Piffard, M. D. Reprint from Medical Record, 1879.

Inversion of the Uterus. By H. P. C. Wilson, M. D. Pp. 11. From the Author. Reprint from N. Y. Med. Jour., 1879.

The Hand as a Curette in Post-Partum Hemorrhage. By Same Author. Reprint from Gynæcological Transactions, 1879.

Hearing and How to Preserve it. American Health Primer, Vol. I. Price 50 cents. Lindsay & Blakiston, 25 South 6th street. Philadelphia, Pa.

Long Life and How to Reach It. American Health Primer, Vol. 2.

Impotency in Women. By Ely Van DeWarker, M. D., Syracuse, N. Y. Reprint from American Journal Obstetrics, January, 1879.

The Pendulum Leverage of the Obstetric Forceps. By Albert H. Smith, M. D., Philadelphia. Reprint from Vol. III Gynæcological Transactions, 1879. Pp. 26.

Bibliotheca Dermatologica. Catalogue of Cutaneous Literature in the Library of Henry G. Piffard, M. D. Professor Dermatology in the University of New York. 1879. Pp. 37.

Minutes of the Meeting of Organization and Proceedings of the Sanitary Council of the Mississippi Valley. Memphis, April 30th and May 1st. Atlanta, May 5th to 9th. Chicago, Ill.

Posological Table. Including all the Official and the Most Frequently Employed Unofficial Preparations. By Charles Rice, Chemist, &c. New York. Wm. Wood & Co. 1879.

Quarantine: Its Sanitary and Political Aspect in Relation to the Spread of Epidemic Diseases. By J. C. LeHardy, M. D., of Savannah. From the Transactions of the Med. Society of Georgia.



